India Habitat Centre

Voices
of the **Young**

India's Youth Energy - Power and Potential

Towards Habitat Young Visionary Award, 2010:
The Change I Want to See;
The Change I Want to Make

India Habitat Centre is involved in building care, commitment and awareness in the citizenship for issues of common concern; and strives to position the Habitat discourse in the public domain for better governance for framers and consumers of public policy.

The essays in this publication constitute the short-listed submissions for the Habitat Young Visionary Award, 2010 and have therefore been carried verbatim.
The views expressed in this publication are those of the contributors and do not necessarily reflect the views of the India Habitat Centre.

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Content

The Jury

2009

North Zone Semi-Finals

Prof. Ghazala Amin
Professor of European History,
Jesus & Mary College,
Delhi University

Mr. Amrit Mathur
Sports Columnist & Administrator

Prof. Gurjeet Singh
Vice Chancellor, Rajiv Gandhi
National University of Law, Patiala

Prof. Upinder Singh
Professor of Ancient History,
Department of History,
Delhi University & Author

South Zone Semi-Finals

Mr. Shekar Dattatri
Wildlife Conservationist

Dr. Jayaram K. Iyer
Associate Professor, LIBA, Chennai

Ms. Jaya Madhavan
Writer and Illustrator

Mr. Sanjay Pinto
Chief Correspondent - Tamil Nadu, NDTV

Ms. Seetha Ravi
Editor, Kalki and Managing Director,
Kalki Group of Publications, Chennai

Finals

Mr. Nirmal N. Andrews (IAS Retd.)
Chairman, Projects Assessment &
Appraisal Committee (Infrastructure
& Miscellaneous Projects),
Ministry of Environment & Forests,
Government of India

Dr. Sanjaya Baru
Editor, Business Standard

Dr. Andre Beteille
Sociologist and Former
Chairperson, Indian Council of
Social Science Research

Mr. Upamanyu Chatterjee
IAS Officer & Author

Foreword

It would be grossly unfair to call the young of this country as the 'idiot generation'. With Amir Khan's recent film having successfully built a crescendo of reminders that the 'young have it in them to do wonders', this generation has come to stand for belief in itself and a complete irreverence that 'impossible' only means it would take a little longer to do it. India's young population is on the rise and by 2050 we will have the highest percentage of youth in the country. There are so many remarkable initiatives that have been achieved by the young graduating from different schools; initiatives which reflect that the driving force is self satisfaction and doing good for the proximate community. Theatre, music, films and community initiatives all attest to the ingenuity and infectious enthusiasm of their young architects.

India Habitat Centre had six years ago, sought to build a platform for the young to enable a dialogue across the generation gap and positioned the summer fellowship in Cambridge and other internships for the finalists that would help them to travel and take a look at extended horizons to make their choices for life. That the Habitat Young Visionary Award has helped over the years to attract talent and enthusiasm from across the country's undergraduate population is a matter of great satisfaction for India Habitat Centre. Minimal as this support is, yet the wide interest that the Award generates helps to initiate enthusiasm and a participative feeling in something purposeful for the young undergraduates.

For the first time we have a Semi-Finals Round outside Delhi as well - in the southern region at Chennai. This is being hosted by IIT, Chennai. We see this as an indicator of the wider interest generated in this initiative of the India Habitat Centre.

Our cover this year features the winners of the earlier annual awards and I am sure that this year too we will have an interesting range of perspectives put forth by the participants in the Semi-Final and Final Rounds.

Raj Liberhan
Director, India Habitat Centre

Experience Sharing

Undoubtedly, the four weeks I spent in Cambridge were the most memorable moments of my life.

It was my first trip to England. And as expected, it was raining the night my flight arrived at the Heathrow airport. "Huh, welcome to England, I thought!"

The next day I was in Cambridge - anxious, ecstatic and energetic. The ambient scenery and climate were just amazing. I had fallen in love with the royalness of the King's Chapel, which had the calm river Cam flowing at its feet. No doubt Sir Isaac Newton too loved Cambridge.

I had taken three course. The course on political economy was the most fascinating one. Now I know why Marx, Keynes and Ricardo are so famous persons. I spent a few hours in the Cambridge Library daily. I remember that the Cambridge Library was a structure even bigger than the IIT Delhi Main Building. It had, literally speaking, all the books in the world.

Now you might say what was so special about the courses? The answer is that the extra-specialilty of courses, and in general, the life in Cambridge, lies in studying with people from over 35 countries, and people within the age limits of 16 to 80 years !!!!!!!!

I made many new friends. I had the pleasure of meeting Suranjan Sen, the grandson of the former law minister of India, Ashok Sen. Together we spent huge amounts of time together chatting about the Indian history and future.

Well, at some point of time in my life, I definitely wish to be there again !!!!

Parth Patel, IIT Delhi,
Winner HYVA 2009

HYVA 2009 was an unforgettable experience.

I remember walking into the Habitat Center auditorium for the semi finals and being absolutely overwhelmed by the distinguished panel of judges. The event on the whole served as an un-putdownable platform to form new connections and network with a lot of interesting people. There are a large number of people I met at the event whom I still keep in touch with.

The internship at National Geographic, Hong Kong was something quite out of the ordinary. From staying in the serviced apartment wing of a five star hotel on the Kowloon Island waterfront to working with an extremely diverse group of people, the one month was a haze of great fun. The internship was quite aptly designed keeping in mind the diverse background of HYVA applicants. I spent a week in each department and worked on projects ranging from Flash applications to video editing to market research.

Other than rather interesting workdays, the city is a sight to behold. Beaches, Hills, lonely islands, great food-the city has something for everyone. With its extremely compact structure and great public transport, Hong Kong stood out from any place I had ever visited in India.

Overall, my internship helped me forge a lot of new relations and also helped me view a career path very different from anything I had ever conceived. Thank you Habitat Center and National Geographic and my best wishes to this year's participants.

Anurag Dutta
Second Winner HYVA 2009

North Zone

Abhaya Acharya

When I first acknowledged the underlying spirit of the statement and analysed it in context of my life so far, I was appalled at the number of thoughts that crossed my mind in relation to the change I feel most strongly for, (to the extent of catalysing it) because coming form the state of Bihar, which is nationally acknowledged to be one where Dr. Sen's 'distribution problem' is most effectively paralyzing regular domestic life, corruption is well matured and manifests itself in a milk-man as well as a bureaucrat, illiteracy is a way of life and literacy is a facade, and discrimination (in general and gender specifically) is the unspoken decree followed unquestioned and unchallenged by one and all with great enthusiasm; I could not single out the one cause with which I could associate myself on this particular platform without running into the risk of dissatisfying myself by not doing justice to others.

What should I talk about? Should I discuss communal disharmony, cultural intolerance and the politics of divide and its effect on next door neighbours or should I discuss in detail how it feels to annually see a quarter of your house submerge in water from the sewers during the monsoons or should I talk about the angst and frustration one feels when scams and corrupt office bearers deprive you of your hard earned money or should I talk of crumbling infrastructure and its repercussions on a middle income group helpless loner of a civilian trying to survive in the city where he works?

I felt frustrated indeed due to power failure for consecutive days, which were a weekly feature of the summer months, and due to poor streets and pathetic public transport rendering half of the town inaccessible. At some point or the other one feels wronged, whether it was because of the redundant administration, corrupt bureaucracy, or the locals; all of them owe many of us much more than just an apology. This is merely the skeleton of a story of a middle class commoner living in the capital city. Far worse is the plight of those ignorant, helpless and unfortunate farmers who are cheated by middle men, neglected by the government and rendered perennially destitute by Nepal's river.

I don't know whether or not I should label it my good fortune but I had the chance to get a small sneak peak into the lives of rural people. When on one hand our complains chiefly revolve around corruption, infrastructure and recognition; they unaware of these concepts, beg to be allowed to live. When I can feel so frustrated because I was deprived of luxuries, what must a farmer feel when his crop fails and he is drowned in debt and has no money to afford necessities to support his family? And come to think of it, they are nearly 60% of our country's population!

This therefore, is the time for change, the point of change and the change I want to see. And there could be no better agents of change other than people like us; those who, in some way or the other, have seen, known and experienced it, who understand the problems that an under-developed state faces, who have been fortunate enough to receive education to comprehend these problems and get opportunities to express themselves, deliver the message of the masses or proactively involve themselves in catalyzing change and corrections and who despite all odds and evils love and respect their country.

Deprivation is the root cause of many if not all evils. Scams and bribes are a means to transcend from deprivation to fulfilment. So, an economic structure that guarantees equity is one which minimizes corruption, thereby hitting two birds with one stone.

So we need a comprehensive plan to provide basic amenities like electricity, water, employment, connectivity and education to the deprived masses of the country within the constraints of our national budget without compromising upon environmental sustainability and develop a plan which has less to do with giving away unemployment doles and grants (as they merely provide a temporary relief and are generally a knee-jerk reaction to an adversity rather than a long-run constructive solution for economic welfare maximization) and has more to do with skill and human capital development for self sustenance and sufficiency.

The rural population at large suffers from seasonal unemployment or disguised unemployment or lack of proper skill-training or education to find new situation. So, agro processing units can come in handy here which can potentially absorb the excessive unskilled rural labour force. Edible oil extraction, refining and packaging, or grounding and packaging mills for wheat, legumes (like pulses, pea, corn etc.), spices and so on, in polyethylene packs or tetra-pack or tin cans with brine, could be an avenue for employment in rural areas. Agriculture and allied businesses are not restricted to cultivation but involve pisciculture, horticulture, sericulture, apiculture, cattle farming, poultry farming etc. Similar processing units accommodated to the dominant agricultural practice of a given region can serve the same purpose.

Packaging sea food like fish, crab, lobster etc or cattle meat like pork, lamb, beef, red-meat etc or other products like honey and dairy products close to the point of production has tremendous scope for employment in rural areas.

But who would own these agro-processing units?

I suggest co-operatives, government or private, for the same and as we have observed, they have been a tremendous success in the dairy market of our country, the most well known being the Gujarat Cooperative Milk Marketing Federation, GCMMF, under the brand name AMUL. Little are people aware of this model of marketing. Interesting as it is to point out that on different packs of the same AMUL butter one is likely to find the address of different manufacturing units as GCMMF only markets these products, delivered to it by different production units across the state working under the prescribed regulations of GCMMF. In this model, the cooperative can be a private initiative (like AMUL of Gujarat) or can be a government initiative (like the milk marketing cooperative of Bihar). Agro-processing units could run as per their own norms and policies contingent to the fact that they adhere to certain basic prescriptive guidelines of a central board dedicated to the development of the same (similar to the National Dairy Development Board, NDDB, which lays down the guidelines for any private or government milk and milk products marketing co-operative and performs regular checks and inspections too).

The following are the advantages of agro processing units as well as the cooperative model for managing them and marketing their products:

1. Processing and packaging agricultural products requires minimal skills and a basic 6 months training would be sufficient for the same and therefore it would be a convenient job option for the largely unskilled rural masses.

2. The rural labour force is either unemployed during certain parts of the year due to the seasonal nature of their crops or are unemployed in a disguised way. So this surplus labour could be conveniently absorbed in these agro-processing units.

3. These units being packaging and marketing units, could conveniently buy raw materials from any and every farmer, large or small, and in turn pay them a fairer price which the numerous middle men usually deprive them of.

4. Units like these operate under strict norms of quality and purity and therefore are incentives to standardize their final packaged products from BIS, AGMARK etc. This assures quality to customers without incessantly hiking the price (a baggage that accompanies agro-products from private established brands like ITC).

5. It can also assist in smoothening the supply chain of agricultural products by providing an established outlet to retailers and thus doing away with a haphazard supply system governed by countless middle men.

So I present a final picture of state level cooperatives, governed by a national board, which owns numerous agro-processing units across the state; units which employ largely the unskilled and semi-skilled people from rural and semi-urban areas, where farmers can sell their produce and from where retailers can buy quality agro-products like edible oil, flour, barley, lentils and legumes, spices, honey, canned meat, sea-food etc.

The waste from such units would be non-toxic and bio-degradable in nature and could be fed into a bio-gas plant which could be a mandatory accessory unit of such plants.

Energy requirements of such plants can be easily met by solar energy. Solar panels involve only installation costs and are very low on maintenance and they have been successfully powering the Gujarat milk cooperatives for years now. Solar panels maintained by these plants could meet the energy requirements of the local villages as well.

Now it is essential to device a remittance model because on one hand, the agro-processing units pay cultivators (for their produce) and the workers of their plant salaries, and on the other, the farmer families pay the agro-processing units for consumption of bio-fuel and solar-electricity (tapped and accounted for through reliable mechanisms like the electronic meter).

A convenient remittance model in this two way transaction can be mobile money. With cell phones becoming common place in India, the economic empowerment of the poor is now simpler. In places with bad roads, unreliable postal services, few trains and parlous landlines, mobile phones can substitute for travel, allow quicker and easier access to information on prices and enable traders to reach wider markets, boost farming, micro enterprises and entrepreneurship and generally make it easier to do business.

Mobile phones have opened up a new opportunity: mobile money. Mobile money might seem a new concept in India but they have been a huge success in countries like Kenya and other sub-Saharan African countries. The system is similar to the pre-paid account recharge system of India with only one difference. Money once debited to a mobile account can't be retrieved but operators offering mobile money scheme allow that. Here corner shops behave as bank branches. Once you withdraw money from your phone account these shops give you the cash immediately. This system can be used by agro-units to pay money to farmers as well as get reimbursements for services of bio-fuel and solar-electricity. BSNL, which is government owned, reliable and has greater reach in rural places, can launch the mobile money scheme and thus allow agro-units to transfer cash directly to mobile accounts of farmers and it can also facilitate the agro units in getting money from farmers for fuel and electricity by directly deducting the amount from their mobile money accounts. This will minimize the possibility of faking identities and duping and depriving the improperly educated rural masses of their rightfully earned money. But here I want to add that this is not the only scheme possible, there can be many others as well, this is just one of the means.

Majority of India still lives in rural and semi urban parts of the country and given its state it needs immediate attention. Also, 60% of the Indian population is still employed in agriculture and allied businesses and therefore such a large chunk of the population can't be kept under deprivation. Supported by these two arguments i hope to justify increased governmental expenditure and investment in the rural sector. This grassroots targeted approach guarantees effectiveness in two ways; it targets the larger chunk of the Indian population thereby assuring improvement in income level and standard of living of the masses and better supply of basic amenities and improvements in life style in effect reduces corruption and crime.

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Abhinav Banerjee

The Change I Want To See, The Change I Want To Make

Until a few years back, I could think of infinite things that I'd want changed in this country of mine. Today, however, to my fellow countrymen's credit - to that of the youth especially - the scheme of things in my milieu has been ameliorated so much, that my screed of wants would be a lot shorter if I were to make one today. For those still remaining, I have the immense and very harnessable power of the youth of my country - which I myself am the smallest aliquot of - backing me to help gun them down.

It is important, more than advisable, that we be positive about all that has been happening around us, for it is said that the future - although largely unforeseeable - is shaped up from the present, and what we think of tomorrow certainly depends on what we think today. Over the course of this picture of mine, therefore, I'll first quickly brief India Today, then demarcate the change I wish to see from the change I can really make, and then widen my ambit some more and urge all those sharing my concerns to be the change they want to see.

<u>Trends seen picking up in India lately</u>: Any wise bystander and observer will talk of the six mega-trends that the country has seen in recent years. For one, sizes of almost everything have increased right before us - the telecom industry, with 5million connections then to more than 180million now; the Indian car market, with private vehicles having doubled from 2000;

and ever-expanding commercial space. It's all been about acquiring of scale.

Second is the undeniable spread of networking and connectivity. With that comes in tow altogether different awareness levels, a different quality of decision-making, and consequently, productivity gains.

Also having acquired scale is the Indian middle class. It, primarily, is the one that needs to be focused on as comprising the urban voter base.

There have to, though, be consequences of rampant, unrequited growth - there's the environment, with increasing pollution, deforestation, dropping groundwater levels; there's the energy question, with our being locked in energy-intensive, resource-hogging production & consumption; and there's disparity, with Bentleys & watches on one hand, and farmer suicides on the other - weighing down on us.

India has been increasing its openness to the world, and a country that's open to globalization fundamentally becomes more adaptive and responsive vis-à-vis closed systems.

And lastly, the immense power of the youth - something like half of India is under 25. Not only do we adapt faster to new trends, we make marketers work on low-cost products & services.

Now, four out of these trends are majorly positive, one is clearly negative, and the opening to the world, of course, has its own swings and roundabouts either way.

Threat To Our Pluralism: If our clutch of the young is anything to go by, then the very first upshot of an open world is right before us to see. With the western way of life engulfing more of us than we would like, it is of grave concern to see my fellows sporting phony accents, proclaiming their having lost touch with, and discomfort using, their mother tongue, not being able to read and write in it, and being proud of it too. I despise this so. I happen to be well-versed in Bengali, my mother tongue, can read and write it; in Hindi, because of where I live; and in English, because of my sound education. And, I am proud that my repertoire is more expansive in each of them than most, probably my thoughts and horizons wider too.

Prima facie, we may not take it to be a serious problem, letting it pass (Jet-setting age, generation of today, international communication called for, if you will). But delve deeper, read the subtext, and we have reason to take notice, for we are actually privy to depleting leadership. With such a shallow thought-stream, how can they hold the weight of the concerns of others? How can one who is already a slave, to those not his own, lead those who are?? It is my ardent hope that I see leadership being re-'root'ed (rather than re-routed), and ground in values, before a severe leadership crisis becomes inevitable.

Rural-urban Divide: It is, moreover, also of concern to see that a sizeable part of the youth actually hates India, palpable in the umpteen sample surveys conducted as well as in the mass exodus of college pass-outs and sundry we see every year. The trend may have reversed somewhat for veterans of the NRI story, with leading fund managers, company owners abroad coming back to India as it throws open the best opportunities in the global market. But even then, those fresh out of their higher education are still increasingly leaving for distant climes and spending most of their working years there for superficial cheap clapping, ready recognition and easy earning. By doing so, they turn their back on those who could actually do with their help - rural India. If they did give their services here at home, their names would go down in the annals of time as those who, in actuality, helped uplift the nation, rather than being remembered neither here - for never wanting their country - nor there - for being the immigrant who was never wanted by that country. This is

a very big change that I would like to see - that people learned not to run ahead of the others, but to walk with everyone.

Making Changes:

Circle of Influence
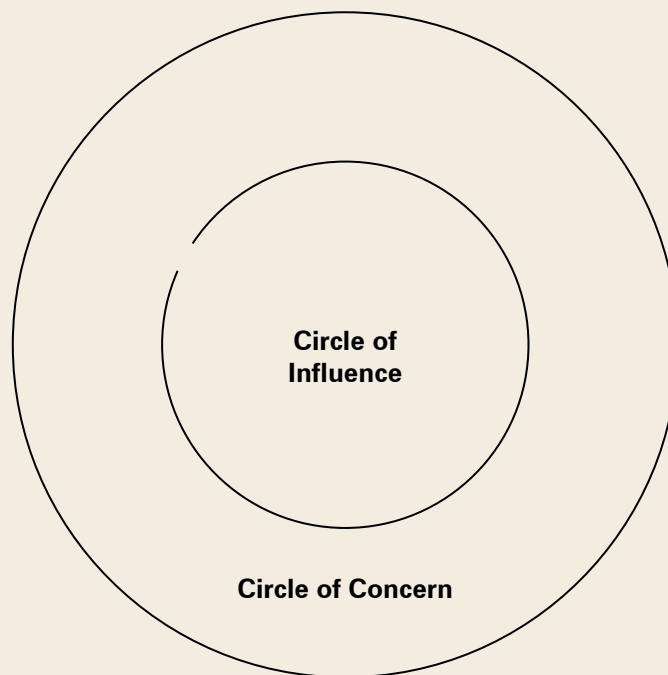
Circle of Concern

Here I call upon management guru Stephen R Covey's famed measure for things to focus upon in life - the Circles of Concern and Influence. For the uninitiated, the Circle of Concern (CoC) could very well extend to the whole universe, for it has everything that the mind has thoughts or concerns about, and what is it that we don't think of?! The Circle of Influence (CoI), usually smaller than the CoC, on the other hand, contains all that we have got the power to, well, influence.

Now, as mere students, our Circle of Influence may be smaller than we would like it to be, but it still encompasses quite a few important aspects. It, for one, enables us to raise our voice and protest against any form of injustice or wrong practice we may see being meted out. It also allows us to tell people off for uncouth habits - spitting, urinating, defecating at public

places. Do not underestimate the power of such simple acts, for it's actually about bringing a bit of finesse around, and such things are usually procrastinated indefinitely till the last stage of any purification process, despite being as important as any of the other stages.

For the bigger, gaping voids, the power to shoot down which rests with only a limited coterie, we still have hope. We all make for an ambitious lot, don't we? And with the unblinking beacon light of our dreams guiding us, we are sure to go from strength to strength in life. So how about we utilize our rising stature and clout to our advantage?! In other words, as we go on expanding our Circle of Influence to pari passu cover those areas which hitherto lay as only our concerns in the Circle of Concern, we can tweak things as our righteous, sagacious minds guide us to, now that we have the power to do it. It is only when we shall speed things up, and juxtapose it beside all the preceding years of dawdling for all to appreciate the stark contrast, that people shall understand what really has been the problem all along - our corrupt, incompetent politicians and lawmakers have actually had their Circle of Concern smaller than their Circle of Influence, i.e., they could bring about important changes if they wanted to, but lamentably choose to confine themselves to their own interests, which indicates the highest degree of myopia.

We Have To Soil Our Hands: So, it is only prudent that we, the harbingers of change, enter the dirty realm of politics and try, from our side at least, to hit corruption on the chin. And while at it, also try for rural upliftment, which we have wanted to see for as long as our minds take us back. Especially when we, as those who watch blow-by-blow accounts of everything that goes on around us, even as it breaks, have been witness to a large number of motley situations - a privilege our progenitors never had, without television sets and developed Information, communication technology. It, therefore, ought to be etched in our minds, more firmly than in anyone else's ever before, that we would do well to practice for the bad times, even during good times.

Now that all others working with me right now in painting their vision, are vying for the Visionary award, it goes without saying that we have an idea as to how things should work, and how best people around us ought to work. It, then, is important that we do not let ourselves wither away inside the claustrophobic cloisters of an organization, the ethics of which do not resonate with our vision, and under an employer who does not share our vision. If any of us has a phenomenal idea, that stands to benefit all, and can gather the wherewithal to make it see the light of day, they must - by all means - turn to being an Employ<u>er</u> and not an Employ<u>ee</u>. Because we must understand this - as long as good ideas, to introduce an innovative product, to drive down costs of a product, or to ameliorate the quality and utility of a product, continue to come, we can never be out of the need of, or be in excess of, novel entrepreneurial ventures. Thus spawned Small and Medium Enterprises (SMEs), Small and Medium Businesses (SMBs) are, today, the apple of the eye of any nation, setting them up is not too Sisyphean a task, and yet they do more good than we can count. It's about growth for all. Growth in the world is only going to go to those nations which have nowhere to go but up, where basic needs at the bottom of the pyramid are fulfilled and everyone begins aspiring for more. Delivering growth by doing good old-fashioned stuff, making people a little wealthy, or a little more affluent, taking them out of poverty - that is what is going to matter in the times to come.

Closing Comments: For those worthy of taking them, it is about time we started scouting around the world for opportunities, for we will need opportunities to buy market positions in a measurable manner, as well as positions of power on the global stage for establishing our formidability, very soon.

As for what we make of this nation, history and celluloid have given us three persons we can look up to, each standing for a different philosophy of life:

First up, Mahatma Gandhi, he who epitomizes selfless leadership. His deeds, non-violent and noble, continue to live on today.

Gurukant Desai, or Gurubhai, from the Indian movie masterpiece 'Guru', is the cynosure of Machiavellianism, i.e., he has no qualms speaking brazenly about a few unscrupulous means he may have had to resort to, to achieve something that has been for the greater good.

And finally, the most feared legendary investor ever of 'Wall Street', Gordon Gekko, he who believes "Greed is good. Greed works".

Who out of the three do we admire and deify as our role model? Whose values are we emulating?? The answer to this question will deeply affect the kind of change we bring about in the country over the next many years to come.

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Asif Zafar

Seize The Demographic Opportunity

Introduction

If the nineteenth century belonged to England and the twentieth century to America, the current century belongs to India and China.

We are fortunate that more than half the Indians are below 25 years of age. Europe and America are already greying into old age. Apparently, a great opportunity is knocking at our door. But are we equipped to make use of this demographic dividend to our advantage?

I feel we are not equipped. Not at the moment.

Here is my vision:
- Short term:
  India needs a pool of dynamic entrepreneurs.
- Long term:
  India needs a pool of innovative researchers/scientists.

To my mind, these are the major shortcomings that we need to overcome.

The way I see it, the root causes underlying the above shortcomings are:

1. Our risk-taking ability
2. Our ability to question the assumptions and think them through

Though the solutions would ideally be multi-pronged, I want to see some changes in our examination-ridden Education system first.

Why is the issue, chosen by me, important?

I have tried to think about the changes that would make for a better India. I have often wondered what America or China has that we don't.

America doesn't quite outperform India on raw talent. Nor do they have better natural resources. They are perhaps better than us in one key area: they spawn a large number of dynamic entrepreneurs. Entrepreneurs who are men of vision and integrity. They create employment and plough a part of their profit back into the society: to improve their society and their alma mater. Compared to India, they have also provided a more conducive environment to the Scientists for innovation and research.

China scores over India in terms of a better Primary Education and Vocational training for their rural population. "China invested heavily in the Primary Schooling like the Western economies, began with agricultural reforms, moved on to low-cost manufacturing like toy units and is now inching up the value-chain. India, however, has essentially relied on the Services sector that employs graduates. No agricultural reform here. And no broad-based industrial revolution either". Perhaps two Crores work here in the manufacturing sector as compared to ten Crores in China. The problem of employment and employability is far worse at the villages. And that's why we witness this relentless migration to the metro cities of India.

We have to improve

a. Like the Chinese, our Education System and Vocational training &

b. Akin to the Americans, create an environment that is conducive for accelerating Entrepreneurial drive/ Research activities.

India needs to produce a large number of entrepreneurs and lateral thinkers/innovators/researchers.

- To eradicate poverty, we have to grow.
- To grow, we have to employ the unemployed: particularly the rural unemployed (if we are looking at a balanced and sustainable growth).
- We need to generate a large number of additional jobs… the required number would be in Crores. Ideally, the entrepreneurs should provide jobs to the rural youth and preferably in their own locality so that migration to the metro cities stops.

To achieve the above, we have to fire on several cylinders. However, if we improve our Education system first, that should usher in the other changes subsequently.

My Solutions

We need to learn how to think. We need to know how to ask relevant questions, deal with uncertainties, evaluate risks, examine the assumptions underlying a hypothesis, draw a conclusion, recommend solutions or make a decision. What percentage of our students, the rural ones in particular, have such capabilities? We need to better our education system. If that pre-supposes better infrastructure or better teachers at our schools or an IES (Indian Education Service), we have to go for it. We have to channel a higher share of our GDP into the Education Sector.

(A) Pedagogy related:

- We need to have fewer classes and more assignments, field trips and projects, at the undergraduate level, to develop our own thinking process. Some exposure to case studies would help.
- Our school syllabus should include these two subjects
  a. Entrepreneurship: It should cover an overview of Psychology, an insight into the makings of an entrepreneur, success stories in our small and medium Industries. &
  b. Sustainable Environment. It should talk about the forthcoming Peak Oil crisis and why we should develop without causing a damage to our Climate.

- We should have interviews (in Hindi, if need be) for College admissions at the undergraduate level. Today we see a large number of uni-dimensional students with a one-track mind, who have neglected all co-curricular or extra-curricular activities, making it to the premier Institutes like the IITs. If we roll out an Interview process with due consideration, into the top 50 institutes of the country on a Pilot basis, it would help. The school students would be motivated to add other dimensions to their personality: leadership skills or community service. For an entrepreneur, presenting his business plan and holding his own in an interview with an Angel for a Seed Capital (or with a Venture Capitalist for a post-start up loan) is a key requirement.

- In India, we can't quite ask a teacher in a class and clarify our concepts. It hurts his ego if he doesn't have the answer. Also, there is no feedback system in place where a student can rate his teacher anonymously (so that the student doesn't find himself in a spot of bother).

- IIMs should deny admission to those with less than two years experience. Financially speaking, those with a prior work experience would be better placed to take a plunge as an entrepreneur.

(B) Others:

- We have no Social Security. We have to incentivize risk-taking. If a youth fails in his entrepreneurial venture, it should not be held against him when he faces a job-interview. The age limit that exists for different Government/PSU jobs should be appropriately relaxed for them.

- If the business idea is found to be viable, we should meet the prospective entrepreneurs, particularly the rural youth, more than halfway. A scheme should be launched to provide seed capital to a team of entrepreneurs

without any collateral. It could be along the lines of the initiative taken by the Grameen Bank of Bangladesh for empowering the rural women (the peer group pressure ensures regular repayment over there). However, the effective interest rate of Grameen Bank is as high as 20%. Our interest rate needs to be more reasonable. We need to think out of the box. The Government might want to examine the feasibility of the profit-sharing concept of the Sharia Financing System.

- The entrepreneurs suffer from a serious image deficit. An active cross-section of the society and the media should focus on the emerging entrepreneurs, put them on a pedestal and convert them into idols. They need to be hero-worshipped the same way as our sportsmen and the film stars are. All rags-to-riches success stories, particularly those of the underprivileged, the minorities and the women, need to be hyped up.

The clarity of thought and speech should be one of the key deliverables of our education system. The education system should teach a student how to question his own assumptions. Many of our assumptions are simply picked up by what we read or hear. We tend to imbibe certain prejudices from our close relations. Sometimes we do not clearly know why we are doing a certain thing. We simply abdicate our thinking to a leader we admire. A student must think through his assumptions and question his own beliefs (value systems). Even if he draws the same conclusions now as he had earlier, this thought process would remove the cobwebs from his mind. It would make him a more reasonable and practical man. It would make him better at what he does: a better entrepreneur, a better innovator and a better Scientist.

The result: India would have better entrepreneurs. Those who can see business opportunities where none exist today, offer creative solutions and generate employment.

My Role
I want to participate in contributing to the changes in our Education System and in making a difference to a few lives in our country.

What have I done so far?

- I am a student of Petroleum Engineering at premier institute at Dhanbad and I am working with a NGO Fast Forward India. I have got involved with the education of children from a nearby village. I have done career counselling. Though I am an engineering student, I have helped them to look beyond Engineering. I have created toys using trash and junks like newspapers, matchbox. matchsticks, tetra pack, cycle tubes. As a teaching aid, I have made use of an educational site for Science called SEED (Schlumberger Excellence in Educational Development) with which my association goes back to 2005-06. I have also used the Website of an MIT alumnus to teach them Arithmetic & Mechanics. To teach the children complex concepts of Science in simple terms, I had to do some amount of thinking myself. I help them to clarify their concepts. However, I never spoon-feed them or offer them any short-cuts. While discussing their doubts, I ask them a few questions and guide them to bridge the gap. Plus, I am teaching them English, Current Affairs, Energy/Oil Conservation and Climate Change. I am trying to improve their pronunciation and diction. I have asked them 'not to speak too fast': a feedback I received about our English from the expatriate HR Managers of different MNC Oil Companies who visited our campus this year.

- I pleaded with several good schools at Dhanbad to take on a few poor rural children on their rolls at subsidized fees The School Principals were sceptical about these children. They felt there was a yawning gap: neither these kids would understand English nor their guardians would be able to interact with the School.. So, I took on the role of a surrogate guardian for two children. I procured a Computer for them and taught them the fundamentals thereof. I am trying to improve their English and general awareness. By the 2010 academic session, they should be ready. I would stand in for their guardians at the parent-teachers meet.

Going forward: What do I intend to do ?:

In the short run:
- I want to set up a Toastmaster's Club at Dhanbad. No such club exists in Jharkhand or Bihar at present.
- I would actively contribute towards building a strong e-cell in our institute.
- I want to place the behavioural questions, of the top twenty MBA institutes in the world, in a Website. This would help a number of students in improving their thought process.

In the long run:
- After working for three years, I would like to work with an NGO 'Teach for India' for an year or two.
- After working for a decade, I plan to help out those entrepreneurs/NGOs who are working in the geographic belt comprising UP/Uttarakhand and Bihar/Jharkhand in (a) Establishing networks between the entrepreneurs and (b) Setting up crèche for the women entrepreneurs
- Eventually, I want to get involved in setting up a Knowledge Call centre. This call centre would try to resolve the doubts of the Science students. I would choose my teachers with a lot of care. I would put up video lectures of the very best teachers in that subject: who might not be highly qualified but who would have an excellent reputation. I would rope in a few retired teachers who would remain dedicated to handling doubts of their subject. Initially, the said teacher would try to guide the student concerned in a way that he could help himself. After three attempts, if the student is still not able to clear his doubt, a video-record of the teacher's reply would be uploaded.

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Ayush Deora

"The Change I Want To See, The Change I Want To Make"

It is amazing how certain childhood memories stick to your conscience and stay with you for a lifetime. They shine like lamps on an otherwise dark canvas of oblivion. One such treasured memory is my first day at school. I remember the big wrought iron gates that loomed above me. I was petrified. The thought of leaving my mother and going to this alien place was horrific. But my wails were futile as my mother pushed me towards the unfamiliar territory. Little did I know that my mother was not pushing me towards the iron gates, she was pushing me towards a better life.

From that day, every moment has been a new lesson. I learnt my first nursery rhyme. I made my first friend. I hurt myself and then I redeemed myself in a million different ways. Every step was a learning experience. One of my proudest moments was when I won the first prize in bunny hop race in standard six. As I grew up, my personality and thoughts evolved with me. When puberty hit, I had my share of infatuations and crushes. By the time I was in high school, priorities had changed again. My heart was filled with the angst of separating from old friends and the excitement of making new ones. School was never about studies or books. For me, it was my entire life. It was beyond my comprehension that school was a luxury which millions of children were deprived of. Without even realizing it, somewhere along this tumultuous journey, I was being educated.

Now when I stand at the threshold of completing my education, I realize how fortunate I was. I am among the privileged few who can read and write. My dreams, my thoughts, my ideas and my visions define me. If I am stripped off my education, I will lose more than my ability to read and write. I will lose my identity and my ability to reason and assess. It pains me to see so many children living a life of despondency. School, which for me was the centre of the world, for them, is a distant reality.

Disparities are everywhere. I study in a university which has been a centre of higher learning for decades. Thousands of students have received their education here. But in this very place of educational excellence, there are children who instead of going to school, serve tea to the students and professors. Their unfortunate plight is being conveniently ignored. The students, who are being hailed as the bright future of our country, are too busy with their lives to notice the suffering around them. The quiet eight year old boy who wipes the table has aspirations too. But his pleas fall on deaf ears and his hopes are drowned in the small cup of tea that he serves.

When I look ahead, I see a distorted vision of India. One image is brighter. I see a country which is led by a woman president, a country which is advancing rapidly in the fields of technology, communication, health and sports, a country which derives its strength from its innate diversity and cultural heritage, a country which boasts of a robust education system. I see a resurgent India brimming with life, ready to take on the global challenges.

On the flipside, I see a country where a large population is still uneducated. Female infanticide and child marriages are still taking place. People are languishing in poverty and find it extremely difficult to afford two square meals a day. Cities are laced with slums and roads are teeming with beggars. There are children living in make shift tents, which they call homes, watching their mothers cook and their fathers try to scrape up a living somehow. Hygiene standards are poor - the children walk around with little or no clothes, noses running, having not bathed for days. Many are abused and exploited and child labour is rampant. Their parents know no better - that is the life they have always lived and have reserved the same fate for their children. - I see a country, where it is hard to survive, let alone live!

I believe that the only thing that can alleviate their miseries is education. Education is the base from where problems like poverty and unemployment can be tackled. Educating women holds a significant importance because it is closely related with the delayed onset of marriage and child birth, improved mortality for both mother and children and reduction in family size. According to UNICEF's "State of the World's Children-2009" report, 47% of India's women aged 20-24 were married before the legal age of 18, with 56% in rural areas. The report also showed that 40% of the world's child marriages occur in India. Such widespread ignorance can only be tackled with education. Providing vocational training to children will help them earn a living. On a macroscopic scale, it will attenuate the economic disparity. The impact of education can be felt in all spheres of life, whether it is economical, political, technical, social or environmental.

India is a huge country. Taking education to the grassroots has proved to be a Herculean task for the numerous literacy missions that have been launched since its independence. Even though the number of universities has increased from 27 in 1950-1951 to 254 in 2000-2001, a huge percentage of the population is still illiterate. According to UNESCO Institute of Statistics, out of every 100 children born in India 15 will never go to school. Out of 18 million children in the 6-14 age group, only 14.04 million are enrolled on school, for the rest 22 percent it's still a high held dream.

These statistics highlight just the tip of the iceberg. The challenges posed look daunting, but the very system that gave rise to these anomalies also has the solution. India is a young country. The median age of Indians is only 25.1 years. There is immense potential in the youth of our country. Their energy needs to be channelled in the right direction. Every year there are 2 million college graduates (BBC 2007) in India. There are around 9800 premier colleges in India and almost 4.7 million students are enrolled in graduate and post graduate courses. The answer lies within the educated youth of our country. If every college student takes the responsibility of educating just one underprivileged child, the, lives of millions of children can be transformed. We, as students, can impact the lives of the less privileged children and enable them to maximize their potential.

If through our endeavours, we can provide every child with a strong foundation in English and Mathematics, a sense of self esteem and tools to earn a future living for themselves, we can play an instrumental role in shaping India's future. To transform this vision into reality, we need an impetus from the youth of our society. Educational institutes are spread throughout the length and breadth of our country. There exist pockets of available spaces in colleges and universities which provide an ideal teaching environment. These can be used as classrooms for teaching. Even a commitment of 5-8 hours a week by students will help in effective delivery of the content. It is important that the students interact with the children on a personal level. Since most of the children would attend classes for the first time, special care will have to be taken to make these sessions enjoyable. Through this system we will be able to penetrate into the rural parts of India and take education to the grassroots. All it needs is a change in attitude and perception. Whether the glass is half full or half empty, is just a matter of choice.

I have taken the first step through my organization "Ahvaan". Ahvaan is a non-profit social enterprise which aims to tap into the pool of students who are currently enrolled in colleges and universities and who have the energy, enthusiasm and the desire to teach.

The government of India defines a "Literate" as any person who can read and write with understanding. The Ahvaan initiative endeavours to take education further by grooming the children and inculcating in them the importance of self esteem, morals and values.

If we join hands, we can help India to rise above its shortcomings. It is time we stopped debating about the issues that plague our country. It is time to act. The only way ahead is through our deep rooted insecurities. The challenges have just begun.

'The change I seek is not around me. The change is me.'

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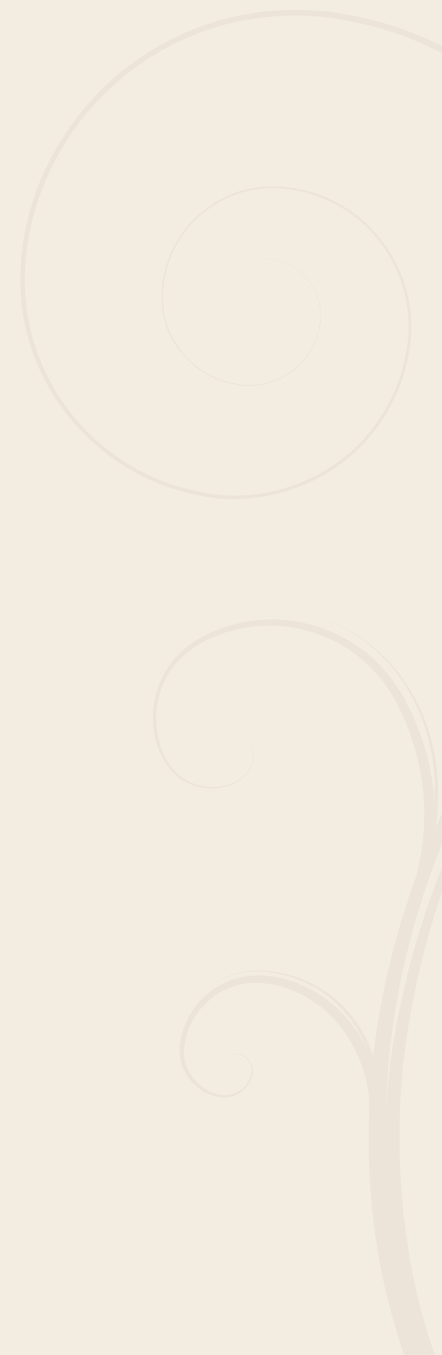
Chetan Tripathy

The Change I Want To See, The Change I Want To Make

The change I want to see is vast and profound. It is my vision. The change I want to make is my mission with clearly defined objectives - achievable, practical and reality driven. The former is a set and the later is subset of it. Both are distinct and yet are integrated and interlinked.

My vision comes from my city life. Borne to a father in Government service, I have never lived in a village or a village life. But I have seen how the cities in India are living hells, where as Hobbes described in Leviathan, life of men (and woman too), is solitary, poor, nasty, brutish and short. I have experienced life in Ottawa, Nagoya and Rome. But I have mostly grown up in Bangalore, Delhi and in Jodhpur. My mind compares the life and times in these cities. Why cannot Delhi Bangalore or Jodhpur be like Nagoya, Ottawa or Rome? Why cannot we have walking tracks, playing fields, inspiring parks, planned cities, wide roads, good looking streets, city squares and cultural tourist spots? Why should we be condemned with ever dug up roads for telephone lines and water connections? Why should someone fail to reach a hospital and die in taxi of a heart attack due to traffic congestions? Why cannot an ambulance or a fire brigade reach the target because of lack of road space? Are our engineers of less intellectual caliber? No. Is there lack of finance? No. Economic and financial loss due to these urban ills is in fact more than the money we need to adopt solutions of a Rome, an Ottawa or a Nagoya. Is over population a problem? No. In fact they will

be a source of user strength for paying user fee and still be better off? I read in the papers, like you did, and with horror I noted that the year 2007 was a special year for the world. The balance had tilted in favour of cities - for the first time in the mankind's history, more people came to live in cities than in villages in the globe. Well this will happen in India too - sooner or later.

My vision is of all Indian cities becoming dream cities with urban comforts of an Ottawa or Nagoya - like surroundings of free walking paths, bicycle tracks, scenic parks, spread out lakes, silent zones, brand new low floor buses into which even old people can get in with ease, absence of slums, no overflowing and stinking open drains, no litters of wastes lying all around in the streets, a city where the head is held high and without fear. India now has two types of cities - spoilt and yet to be spoiled. Setting right of the former is a long drawn struggle and Governments are addressing the problem. My concern right now is Jodhpur, coming in category - ii, yet to be spoiled and how to save it. What citizens can do? What I can do? How can I be a part of the change I want to see myself?

Thus this essay is based on how to make the city of Jodhpur, renowned for its history, heritage, folk dance, music, forts, marble trade, handicrafts, and spell-binding palaces, into the city of my dreams. This process of writing this essay has helped me understand my vision better and hardened my belief in the need and possibility for change. In order to elaborate and substantiate my points throughout the essay, I have used the experience I

gained from staying in four different cities- Ottawa (Canada), Bangalore (India), Nagoya (Japan) and Jodhpur (India). While Ottawa and Nagoya have both contributed to the vision of my dream city, Bangalore, a spoilt city, served me as a warning for bad-planning: sporadic slums without essential services, water scarcity, lack of sanitation and waste disposal systems, energy shortage, environmental hazards, violence and social exclusion, congestion and erratical and unplanned growth. But what could I do to prevent this from happening in Jodhpur, still unspoiled by progress and population explosion?

There are three parts to my essay. The first part is a SWOT analysis of Jodhpur city. The second part list out the three challenges as I have identified to ensure a sustainable Jodhpur city. In the third part, I have written about our small efforts and experiences as the founder of the XYZ Green in the University and how we are attempting to upscale it and institutionalize the same, with a new plan where member students and student groups will interact with ward authorities, NGOs and the people in the 60 different wards in the city to spread awareness and bring in small changes through integration of ideas, institutions and actors thereby making us all a part of the change I want to see.

History and heritage of Jodhpur comes from the fact that it was founded by Rao Jodha in the year 1459, five hundred and forty-nine years ago, at the edge of the world famous Thar Desert, Jodhpur has history and heritage in its blood. The population is not much in India's standards, a mere 846, 408 (2001 census) spread over an area of 75 square kilometers. It is one of the most popular tourist destinations with historical heritage points - like Mehrangarh Fort, Umaid Bhawan palace (Built under a programme like the then NAREGA!). Called the Sun City of India for the year round availability of sun shine, and having a desert climate that varies the temperature between 49 degrees Celsius in the summer to 1 degree in the winter, it has no flooding like other Indian riparian cities. The hard desert soil also makes road and building construction rather cheaper compared to loose and black cotton soils. No physical barriers (rivers, mountains etc) pose any obstacle to the expansion of the city and yet the

city has so far grown in a very compact manner. The sun and the speedy winds create tremendous scope for exploitation of solar and wind energy. In the 17th century, Jodhpur was a flourishing centre of trade for the camel caravans moving from Central Asia. Marble trade from nearby mining points is common. Handicrafts are sold and sent to all over India and abroad earning the city nearly $ 4 billion from domestic sales and $ 2 billion from exports[1]. This can be strengthened through further policy measures and programmes. Although the city needs more resources, there is no shortage of resources as such. The Asian Development Bank, the Government of India under equivalents of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and even World Bank are pumping in resources.

I have identified three major challenges:

Challenge 1 (Infrastructural and future planning):
Increasing population at nearly 4% each year 2, in-migration of people in search of employment and income, illiteracy and poverty, scarce water supply, lack of rain fall, arid and extreme climate, 250 mushrooming slums 3, lack of drainage and sewerage facilities, lack of waste disposal systems - are some of the major challenges facing the city of Jodhpur. These infrastructural issues have to be properly assessed and addressed and resolved with active participation of the citizenry. (Asian Development Bank [4])

Challenge 2 (Integrating transportation plan and land use planning):
Most cities got spoiled due to lack of a proper public transportation system and due to lack of integration of transportation with city planning. Currently, the city has 10,000 autos (three wheel automobiles) and barely 250 buses. The city is in need of 1000 modern, low floor, air-conditioned buses with proper routing and an affordable fare system in place. In reality, the present owners of buses and the Government are fighting over participative issues. They need to learn from Colombia's capital Bogota trough a visit and a Google search and from Bangalore Metropolitan Transport Corporation. Jodhpur has to have a vision document with proper floor area ratio (FAR) planning in order to ensure that

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[1] (Handmade in India: Preliminary Analysis of Crafts Producers and Crafts Production in India, Maureen Liebl and Tirthankar Roy, The World Bank, 2001

precious lands and resources are not wasted in unplanned horizontal growth at the cost of vertical growth.

Challenge 3 (Sense of belongingness and good governance): The third challenge is to develop a psychological sense in each Jodhpurian to be a part and parcel of the city and a proud citizen who treats the whole city as theirs, moderated with proper information inputs. At present, the Municipal Authorities, representing local administration, neither have a Jodhpur Journal, nor a symbolic flag to represent the city governance. There are 70 NGOs who are registered and belong to the city. There is a sizable youth population. The challenge is how to attract them to participate in the process of decision making and project implementation, and planning so that good governance can be a part of the city's growth story. Business practices in the city also need to be streamlined with forward and backward linkages. For example, completing a supply order that takes 6 months for a business man in Jodhpur takes 45 days in Indonesia. [5]

My role in becoming a part of the change I want to see:
I recall coming across a quote which said that a great city is like an exciting party which everybody wants to enter but nobody wants to leave. Two years back we started an informal club called 'the XYZ Green' in my University. It was a product of raw burning inspiration from the work I was exposed to in UNCRD in Nagoya as an intern. The purpose was to introduce and popularize many things in the campus - vermi-culture, solar energy usage, keeping the campus plastic free, segregation of wastes, awareness among the field level employees, promoting afforestation in the arid campus, use of CFLs, and of course institutionalizing the organization in the long run as a registered society so that we could replicate our best practices into other deserving and elite campuses in the country and abroad. We held meetings every week and membership soared within the first few weeks. Everybody had ideas and wanted to be a part of the process. Even the University administration took note of our activities and became very very supportive. As the founder member, I am now persuading the members to expand our activities to the

city with newer functions to save the city and its environment. We are going beyond the University boundaries, with a lot of experience and inspiration. Our new functions will include - campaign for vertical growth vs. horizontal growth, travel demand management through Bogota model, promotion of non-motorized mode of transportation, institution of a flag and a song for Jodhpur, popularization of solar energy in the sub city, a municipal legislation for compulsory rainwater harvesting throughout the city, and a keep your city clean campaign. But most important goal of ours is to promote the model below to ensure sustainability. This model is based on identification and integration of ideas, actors and institutions in Jodhpur.
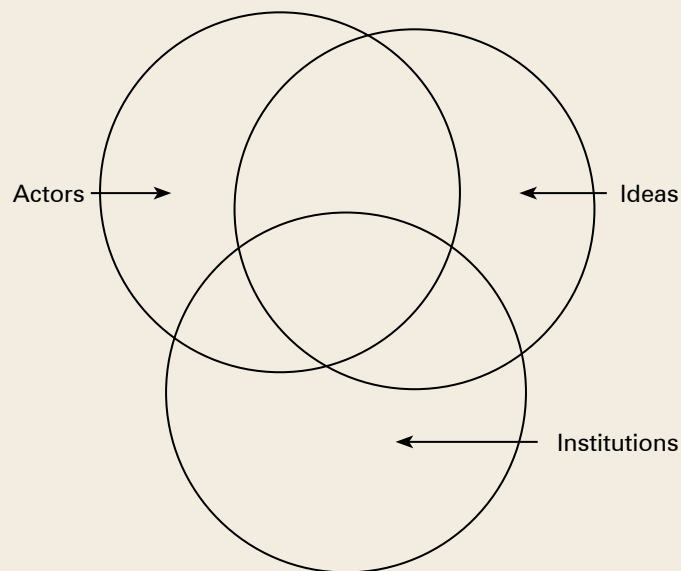
In the future, we plan to register ourselves as a society and adopt a charter. Building upon my experience in the club and a desire to expand our activities to help the city, I submitted a proposal to my University called the "Let's make some noise campaign" inspired by Amnesty International's campaign for Darfur.

[2] http://www.adb.org/Documents/JFPRS/IND/36019.pdf, last visited 22 March 2008
[3] Id
[4] http://jodhpur.nic.in/ruidp.htm, last visited 22 March 2008
[5] Speech by Maureen Liebl on 22 February 2005 at the Asia-Pacific Creative Communities: A Strategy for the 21st Century Senior Expert Symposium

Change
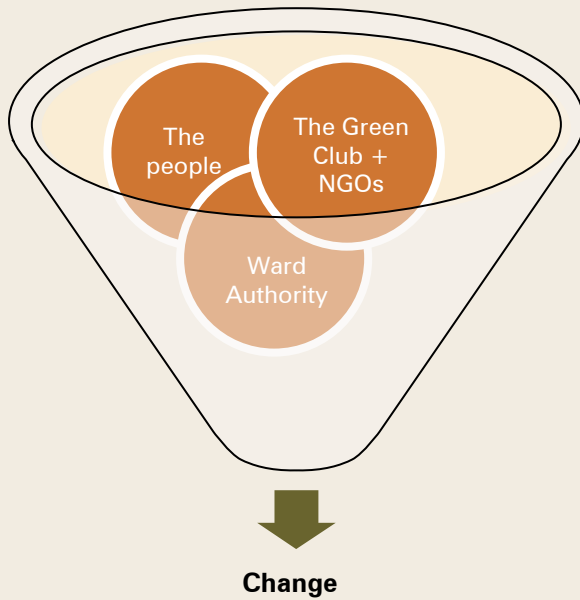
The way I see it, my University is a powerhouse with nearly five hundred students. Jodhpur has 60 wards or administrative divisions. If 8 members of XXX Green visit a ward once in a week, these student-members can play a great advocacy role. And being non-locals, they will attract a lot of positive attention from NGOs, public and the media. Time spent will be worth it. We are hopeful of seeing change flow from ideas, not from the smoke and barrel of a gun. Our mission is to see that Jodhpur adopts a new alternative, based on its past and present, rather than imitating the cities that have failed and died or are dying.

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Neha Kamra

EcoSan - A Solution To Our Country's Need For Urban Sanitation

It was the summer of 2009 when me and my best mate made a visit to an authorized slum (now a part of the railway colony in Kashmere Gate, Delhi) near our college. Having known the fact, that most of the slum-dwellers had no means to dispose their wastes, we wanted to study the possibility of anaerobic decomposition of the wastes using a portable biogas digester or vermicomposting and also analyze the local response to it. As we entered in through many of the gullies (lanes) that ran into the intertwined network of houses, we saw a few children running through them and a few others sitting on rooftops playing cards. What we did notice was that some of these children had developed skin diseases, with lesions and pus on the visible parts of their bodies, like around the lips, hands, arms and legs. The very same day, we were lucky to meet an elderly resident of the slum, regarded as the father of the slum as he was a person who fought for making the colony legal and give the residents right to own their property and have access to water and other facilities. As we talked to him, he spoke with a grim voice. He told us, that although the slum had acquired authorization, it still didn't receive a continuous water supply even after 2 years of its having done so. Two hand pumps were installed but they didn't get their share of water. The toilets (full flush models) were made by the MLAs who came for votes but never solved their problems of not having a working flush system (no water for it), the household wastes were dumped outside the toilets' block, part of which infiltrated the toilets. When we visited the toilet block, we were shocked at what we saw. There were only three toilets made for around 25 families with an average size of four members. On the entrance was a heap of municipal waste disposed from the houses, which meant, to reach the toilets one had to cross that heap. All three of them were blocked, as the sewage system wasn't functional, there were feces everywhere around the pan, there were flies and other insects breeding there, it stank so much, that it was impossible to breathe there. The residents also told us, that it wasn't possible for them to use it, so the slightly financially well-off residents had built their own toilets on a slightly inclined plane and had connected them to open drains, that made all the discharge run in the gullies to the main road and get aggregated there, and the others had no option but to openly defecate, both of which caused the area to become a breeding ground of diseases. Because of the negligent sanitation in the area the children had developed skin diseases, and their parents ignored it blindly, as their financial capacities were very limited.

This scene is replayed every time one passes a slum or a small settlement of people who have built a temporary settlement on the roadside, or a wasteland. In Delhi, the sight of people openly defecating on the banks of the Yamuna tributaries, now the 'nalas' that pass through the backyard of every colony in Delhi, and are like the veins of the city that take the sewage from the city, is a common sight that can be viewed, if one looks out of the windows of the metro rail in Delhi. Everyone uses the same polluted water to bathe and to wash. The urban poor

have not known many options. They thus lack the provision of one of the basic human rights: Sanitation. Sanitation in human rights terms is the entitlement of everyone to the safe collection, transport, treatment, disposal or reuse of human excreta and wastewater for personal and domestic uses, with associated hygiene promotion. The provision for the same must be safe, physically accessible, and affordable.

Sanitation in Urban India is in a state of crisis. Only one in three Indians has access to any form of a functioning toilet. The urban slum communities in particular have limited or no access to any sanitation services. **More than 40% of the total human excreta generated in urban India, is unsafely disposed**. This imposes significant public health and environmental costs to urban areas that contribute more than 60% of the country's GDP. Impacts of poor sanitation are especially significant for the urban poor (22% of total urban population), women, children and the elderly. **The loss due to diseases caused by poor sanitation for children under 14 years alone in urban areas amounts to Rs**. **500 Crore at 2001 prices (Planning Commission-United Nations International Children Emergency Fund (UNICEF), 2006). Inadequate discharge of untreated domestic/municipal wastewater has resulted in contamination of 75 percent of all surface water across India.**

The vision that I hold or at least hope that would be achieved in the near future is that every urban dweller should be provided with minimum levels of sanitation, irrespective of the legal status of the land in which he/she is dwelling, possession of identity proof or status of migration. However, the provision of basic services would not entitle the dweller to any legal right to the land on which he/she is residing. This can only be achieved if we employ a system that is cost-effective, doesn't put too much stress on the environment, can bear returns for both the investors and the customers and is flexible as far as the design requirements are considered, and can be transported (in case of eviction).

It's good that sanitation is recognized as an MDG (UN Millennium Development Goal). However, the way good sanitation is understood, betrays an ignorance of ground realities. The practices promoted today are either based on hiding human excreta in deep pits or flushing them away - for dilution in seas, rivers or other water bodies. Such investments will lead to more pollution and create more inequality.

In urban areas, policy-makers still favor expensive and water-intensive flush systems. Though about a billion are connected to sewerage systems, the sewage of only 300 million undergo end-of-pipe treatment before being discharged into water bodies. Hence the issues that prevail with these systems are low infrastructure and service coverage, low service usage, weak institutional arrangements, expensive systems that bear low return on investments, pollution, high maintenance, and poor management. Also if we study the sewage disposal systems developed in any city or town, it will be found that water conveyance based system uses huge amount of water, which is going to be in short supply in near future due to reduction in average rain fall throughout India. We use treated water for carrying excreta to the septic tanks or sewage treatment plants. This is a colossal waste of resources considering almost non-existent sanitation system in many areas. The lack of water resources in close proximity, high maintenance and operations involved with the usage of full flush, pour flush or conventional pit system pose as massive hindrances that we have witnessed in the past and are surely to witness in future to provide sanitation to all. Dry sanitation should thus be promoted as it closes a cycle and return the waste as resources to the earth and can be modeled to generate revenue.

EcoSan is a technology that can be utilized in doing the job. Its guiding principle is that excreta should be sanitised and turned into hygienic and fertile soil - rather than hiding or diluting it. The EcoSan paradigm in sanitation is based on ecosystem approaches and the closure of material flow cycles. Human excreta and water from households are recognised as a resource (not as a waste), which should be made available for re-use. EcoSan reduces the health risks related to sanitation, contaminated water and waste, prevents the pollution of surface and groundwater, prevents the degradation of soil fertility and optimises the management of nutrients and water resources.

The approach is based on a simple principle: one should not mix water, feces, urine, and greywater. The key elements in

the design of ecosan toilets are: firstly the pan is designed in such a way so as to separate urine and feces in two separate containers. Provision is supplied additionally to wash, the water of which is also collected separately and can be used directly to water plants, and secondly the pan is placed on a raised platform, below which the containers are placed. The walls of the toilet can be built using any conveniently available material. Bamboo is a wise suggestion; to be used to construct the platform and the walls as it is an eco-friendly choice and can be re-grown with the fertilizer collected from the toilet and thus used for renovation after a few years. Materials like ash, wood shavings, paper, soil, dried compost, dried leaves, etc can be used to cover the feces after one excretes. Ash works best, as it is readily available in slums (most of the dwellers use wood or coal as a source of fuel, both of which produce ash). Dried leaves are also a good option, as the leaves are readily available and can be used to get rid of them instead of burning them which is a common practice in urban areas. The urine collected can be applied directly to plants or can be sold to farmers for usage in agriculture. The feces can be sanitized by exposing the container to sunlight and let it decay and desiccate, after which it can be utilized as a fertilizer. After having analyzed the process of vermicomposting and having worked with it in our previous projects it would definitely be a good idea to vermicompost the feces at least after 2 months' time (the gestation period when the container after being filled is exposed to sunlight) to fasten the process. The vermicompost produced can be used to make organic fertilizer, both- liquid and solid. But our previous studies suggest that it would be better to invest in liquid growth booster derived from vermicompost as it can be retailed with more ease and would have a definite potential market with high scalability only if it's marketed right, hence would bring return on investment and would promote usage of organic products of high nutrient quality that can substitute usage of chemical fertilizers and other surfactants that are derived from vermicompost (in a market study conducted by us under VERMPET (our project), there was a high demand for liquid organic fertilizers as they can be just sprayed on the plant and the soil once or twice a week and the sale of which can lead to a break even in 2 years and bring returns thereafter). The vermicompost could also be used to grow vegetables (the practice would have eliminated the last bit (if any) of the pathogens left in the semi-composted human

feces). The vermicompost facility would also absorb a part of their kitchen waste thus reducing wastes. The vermicompost system can also be built in a box of 1ftX1ftX1.5ft for one household. The larger systems could be customized easily as per the usage demands. Alternatively the feces could also be sanitized by exposure to high temperatures (solar heating system could be employed), using conventional composting or anaerobic decomposition.

The ecosan toilets can be designed from scratch or can be made by transforming the existing facility, if any, and require minimum area for installment, and minimum water usage as it doesn't use a flush system or pour flush (the water would be used for washing to suit the Indian practice), and can be built out of using recycled materials and locally available materials that come cheap. It can be installed inside the small houses of the slum dwellers without having them to redesign their houses, or outside and can be transported from one place to another and reassembled. The models could be designed to serve needs at centralized or decentralized levels. At centralized or community levels their collection could be joined so as to make the feces collect in a digester and hence use it for biogas production. Unlike flush systems it sanitizes excrements, conserves water: uses either minimal water or even better: no water at all, excrements are processed near to the point of production without industrial contaminants.

The washing facility can be employed using a tippy tap water which only releases 40-50ml of water and is built using a 5l or less oil canister. The sanitizing of feces takes less time, much lesser than pour flush system (Sulabh's methodology) as everything is not mixed but separated at source which fastens and eases the entire process.

To promote the usage of ecosan at centralized levels, and going by the high demand for public toilets, ecosan toilets can be used to meet the demand and also promote education towards its usage. They can be built in educational institutes and other institutions where there is a dearth of clean and functional toilets. The resources collected can be used for landscaping in the institutional compounds. This would also give the institution a "green" status and can acquire an ISO 140001 certification.

The approach is not new to our country. Mahatma Gandhi advocated a similar approach and during the 1940s and 1950s, there was some development on what we later named ecosan. In fact, over the past 10 years, ecosan has been tried out, with some success in densely built-up, high water-table coastal areas of Kerala, and on a small scale in a few rural areas in Maharashtra and parts of Bangalore. It can surely be used to create toilet facilities for urban poor, and also for public toilet facilities. It would undoubtedly require mass education and breaking a taboo that has been acquired with the usage of flush systems. To get the attention of India's planners and decision-makers, we would need to successfully carry out one or two large-scale projects, in the country. Implementing ecosan projects at such scale will also offer us the scope to demonstrate all aspects of this approach. People will accept ecosan when they see for themselves that the approach actually works. But until ecosan becomes part of a local culture, any new project must be accompanied by major communications efforts.

With the help of generous guidance received from Biome Environment Solutions Pvt. Ltd, Bangalore, I have set up an ecosan toilet at my home, and am trying different options that can be adopted with this technology and I am trying to understand to the best of my efforts how it would work with vermicomposting and generate a revenue stream from the same. Soon, I would like to go back to the slum that encouraged me to think about this issue and start a pilot project on ecosan with the help of a team and a few partners and train individuals and provide service for maintenance of these facilities initially, and encourage the self sustainability of the model, once the end-users are comfortable, as it involves DIY approach which is easy to adapt to. Secondly, I have also spoken to my University to start an ecosan project in February 2010, to educate students and involve them in the same. If this is practiced in Educational Institutions, and is appreciated by students, then they could also be absorbed in adopting a slum near their college/university and install ecosan toilets there and promote the usage of the same through education and active communication and training. This would give them an opportunity to bring a tangible change and give back to society.

In future, if successful, I would like to apply as a private service entity and request for funding from the government under the National Urban Sanitation Policy and to spread the project to other areas in Delhi. Nevertheless, there would be many hurdles to cross; if not in a major way, but small, I would like to contribute in solving the problem of sanitation for the urban poor, and encourage people to adopt ecosan even for their households, so that we can all come together and restore ecological balance in our own little ways.

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Prashant Gautam

Change I Want To See: 'Spandan' - An Intellectual Stimulation

As I set about planning this essay, I wondered absorbedly as to what domain India needs a change in the most. My quest took me back to a conversation I'd had a year ago with Bhanu, a thirteen year old boy I used to tutor. I was thrilled with the spectacular win of Barack Obama in the US presidential election. "The unthinkable has happened! Imagine, a black president in the White House! Who knows? The next could be Bobby Jindal!" I said to Bhanu excitedly. "If only I could become the US president," replied Bhanu, "I'd bring the Koh-i-noor back to India." "But the Koh-i-noor is with the UK Govt.," I corrected him. "Oh," he said, "then I'd like to become the president of UK." I didn't bother to tell him that the UK cannot have a president, let alone one of Indian origin! I, instead, explained to him how inconsequential the possession of the Koh-i-noor is when India's is struggling on so many fronts. He looked convinced. I was, on the other hand, amazed by the sheer fecundity of an adolescent mind through Bhanu's naive viewpoints.

Further mulling over made me recall the statement that Lord Macaulay had given in the British parliament in 1803. It said, "We (the British) will not be able to break the backbone of India until we break their tradition, culture and heritage." His words haunt me because I understand that, after all, he and the British did manage to break our backbone and laughed their way into the pages of history.

We, as a nation, smugly celebrate being an ancient epicenter of knowledge and learning. But I was forced to conclude that after having seen a long phase of subjugation and penury, we're left with little of the ancient wisdom that'd seeped into our collective consciousness over the centuries. We've lost the link, the connection. Was there a way to revive it? My mind wandered back to Bhanu and I decided that there was.

My experiences with ITIHAAS, an educational Trust based in Delhi that I'm associated with, helped me shape my theory further. ITIHAAS walks school students through the archaeological sites in and around Delhi and educates them about our heritage. The alacrity to explore that children display on the ITIHAAS walks has convinced me about their willingness to grasp the unheard and untold.

"You teach all that you want an individual to learn when he is young. If he's grasped enough it'll reflect in his character; if he hasn't, he never will." My grandmother's words have stayed with me years after she passed away. To this I'd like to add that what we think and do has much to do with what we have been exposed to. 'Today's children are tomorrow's citizens'. So, it makes perfect sense to invest in our young so that they go on to form a fine society. In this thought lies my answer, my solution.

My apparatus of change is called Spandan-a stimulation of heart, mind and soul. It thrives on the inquisitiveness that comes naturally

to children and which they're perpetually eager to satiate. Spandan is an attempt to channelize their inventiveness and enthusiasm such that they get to understand that there's a lot more to the world other than the Domino's pizza and their Facebook profiles.

The flagship program of Spandan will be a series of fortnightly lectures for school students from class VIII to XII. These lectures will be aimed at supplementing the existing educational system and would expose students to topics that don't usually fall within the scope of their curriculum but are highly relevant to the world that they belong to.

Spandan would try to present to the students an amalgamation of the best of India and the world and help them perceive their position in the global order. Its lectures would touch upon a myriad of subjects including current politics, modern history, famous personalities, literature, cinema, spiritual philosophy, traditional health care systems etc. All these have deep implications on our lives and if children have a ringside view of them through their growing years, they'd emerge far better equipped with the knowledge of their surroundings.

Students can get involved with Spandan from class VIII and continue till Class XII. Participation should be absolutely voluntary. Spandan doesn't come with any extra academic baggage and students won't be tested on what they learn here. The idea is to initiate children towards new vistas of knowledge which they can explore further depending on their own interest. Following is a gist of the content structure. The programs would begin with simple issues and turn more complex with the level.

Showcasing India- This will aim at providing the children of India with enough reasons to admire and feel confident about their country of origin. It'll include glimpses of life from its metros- Mumbai with its entrepreneurial DNA, Delhi with the distinctly Punjabi flavor and Kolkata, the cradle of both culture and communism.

They would also get the chance to understand closely the freedom struggle, the events surrounding the accession of princely states into the Indian union, the tragedy that was partition, Nehruvian socialism, horrors of the anarchist license Raj and the economic liberalization. All these are aimed at making the youngsters aware of the subtleties of the trajectory that's shaped India the way we see it today.

Yoga, meditation and Ayurveda - The children will be acquainted to the virtues of Yoga and meditations and trained in some simple aasans. They would also be introduced to the Ayurvedic medication system and Ayurveda's interpretation of our bodily mechanisms, dietetics and the different ailments.

Religion and spirituality - It's very crucial for children to understand the true meaning of secularism and it can only happen if they're closely familiar with the different religions that co-exist in India. For this, Spandan will invite the representatives of the different faiths who would explain the background, customs and philosophy of their religions. The most important message that children should be left with is that there's a huge difference between being religious and a fanatic.

Books, movies and sports - This segment is meant to provide intellectual stimulus and refinement of taste to a growing mind. Students will be introduced to books by celebrated authors from both India and abroad. So, while they discover the delights of reading a Wodehouse or Charles Dickens classic they should also be encouraged to give works like Munshi Premchand's Godan and Mahadevi Verma's Ateet ke Chalchitra a read.

Students will also see the best of the western cinema together with some background information. Movies that form my wish-list include Lawrence of Arabia, Sound of Music, Schindler's List and Gone with the wind.

The content for the sports segment will include details regarding major sports, tournaments, teams and clubs and legendary players picked up from world over. Children will surely be interested to know about the origins of the Olympics, the Grand slams and the EPL.

Indian Defense Sector - The Indian defense forces have consistently made us proud and their stories deserve to be told. Spandan will rope in retired Defense personnel to recount the different wars that India's been involved in, together with the nitty - gritties of how the defense sector functions and their own experiences. The idea is to strengthen the students' sense of patriotism and motivate them to join the forces.

Personalities - The world has seen many iconic figures-from Pandit Nehru and Indira Gandhi to Margaret Thatcher and Yasser Arafat- who've changed the course of history. Children should discover what Nehru's legacy to India is and come up with their own opinions about Indira's policies. We can bring in characters from around the world. They need not belong solely to politics. We can also talk about the likes of Gabriella 'Coco' Chanel, Salman Rushdie and the Beatles.

World history- This section will try to familiarize the children with the 'whats', 'whys' and 'hows' from outside India. They should be told how the American, French and Russian wars of independence were different from each other. They should be told about the countries under communist, capitalist, monarchic and military rule. We can present a potpourri of episodes from recent past like the Cultural Revolution in China, Cold War, the division and unification of Germany, The Arab-Israel conflict, the Russian aggression in Afghanistan and the birth of Taliban, the Vietnam War, the Water Gate scandal etc.

Contemporary Issues - This segment is meant for the higher secondary level. Here, the different facets of the issues that are highly relevant and passionately debated upon in the media and other public fora can be discussed in an unbiased manner and the students can then form their own subjective opinions based on a rational outlook. The topics will include Terrorism and Jihad, Naxalism, homosexuality, AIDS awareness, euthanasia, globalization and climate change.

Internship With Spandan
The next target would be to connect the students to the grassroots of our country. Spandan will organize month-long internship programmes for older students in the rural belts where they get involved in the development programs like literacy, health care, sanitation and legal awareness campaigns. It will earn them an exposure to the ground realities of the country, experience of community service and a modest stipend. The internship certificates can add to the students' credentials.

Logistics:
I believe in the potential of Spandan and willing to initiate it using my modest resources. My terrace can serve as the meeting place on the Sunday mornings where I and my similarly inclined friends can sit and to devise the format and content. Those with good oratorical skills can volunteer to conduct the lectures. I count on my family members and acquaintances to support me. My mother, who's been associated with the Maharishi educational movement, can take charge of the meditation and yoga programs; my elder sister, being an Ayurvedic doctor, can speak about her field. I know people from defense who'd be willing to help. Same goes for a few retired university professors who have seen India through the ages and have acquired a formidable reservoir of knowledge.

I want the support system of Spandan to comprise superannuated professionals who have a lifetime of experience and a lot of leisure. College students can also volunteer to help. Luckily, I have many competent friends spread across India who can help to run the program simultaneously in schools from different parts of the country, following a common, extensively worked out structure.

Schools can pay Spandan a nominal fee per student that can be used to support it. The target would be to achieve a cult status in the domain of education at the national level by bringing more schools and individuals under the Spandan umbrella and strengthening the network across India. I understand that it'd take tremendous efforts to persuade the schools but I'm very confident about the feasibility of the concept and prepared for the rough and tumbles of the initial stage.

Teenagers are a restless and fidgety lot and it's obviously tough to keep them tuned in. But even if forty out of a group of hundred children feel interested in the lectures and take back something with them, I'd be happy and satisfied.

The Final Destination

I want the Spandan program to be adopted by CBSE so that it gets integrated with their curriculum. I'd like to see it attaining the same status as NCC and Scouts & Guides. Those students who undergo the Spandan program will be issued certificates of high academic value.

CBSE can use its omnipresence and vast resources to take Spandan outside the metro cities, to the thousands of small towns strewn across the length and breadth of India. That is where millions of Bhanus reside. They're all starry-eyed and eager to succeed in life. Spandan will be the bridge to reach out to them and influence their intellectual growth. Together, they'd outshine a zillion Koh-i-noors.

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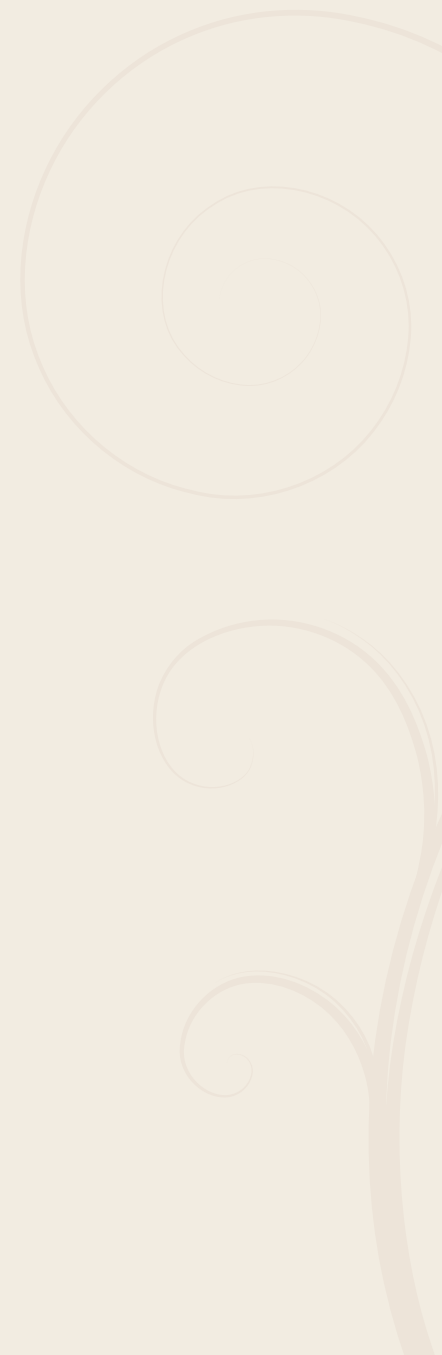
Rishika Das Roy

It has always been idealistic to talk about change, without determining what actions should, or can be taken to implement these changes. Thus in this war zone between battling ideologies where the shelling of never ending debates and discussions about change and action gilded with the armour of laziness and apathy, neither is there, the real desire for change nor the desire for action. What remains: is the problem - unattended, unresolved.

When I, a 19-year old, sit down to write an essay, envisioning the changes I would want to see in my country, all the clichés flash across my head. Images of a terror free India, a corruption free bureaucracy, a higher rank in the Human Development Index, removal of abject poverty etc. But the reality is, that these issues are beyond my control. But I do believe that as a youth, an Indian youth, I too have a lot to give back to my country. The change I want to see is change in people's attitude towards climate change, juxtaposed with more political involvement and legally binding obligations for emission cuts. Dr. Manmohan Singh's policy on Kyoto is "common yet differential responsibility" which does not call for immediate action. This year at Copenhagen Mr. Jairam Ramesh and the P.M.'s special envoy on climate change Mr. Shyam Saran, will be constantly cajoled along with China to accept binding emission cuts for a post - Kyoto arrangement. After the conference is over, ministers from all over the world, will return to their domestic matters and climate change will be forgotten. The campaigns and furore for "seal the deal" will die down, and environmentalists and citizens alike will wait for the next conference - maybe London ? or Mexico?

I had the fortune of attending one such Conference in Geneva, last year, where I felt the carbon footprint for flying the innumerable UN dignitaries contributed to climate change extensively, probably because no work was done there after. The disillusionment still ceases to fade. The constant "talking shop" gimmicks, is one that leads the dreaming youth to not think of change. The distant image of a polar bear sitting on the permafrost, with a slogan saying "help me "as repeatedly publicized by the media, has failed to leave a mark, for most of urban and rural India, where poverty seems to be mounting due to the effect of micro - climate change. It is most unfortunate that poverty and climate change often intersect though this section of the population has never been responsible for the contribution of green house gases.

The time for making banners shouting the slogan "STOP GLOBAL WARMING" and making school children parade with it on public holidays or days such as the 5th of June, is over. However amidst the statistical, insipid numerical figures - climate change has a "face" with real people - the apple growers of the Himachal, the melting glaciers causing havoc in the irrigation system (zings) in Ladakh, the droughts over the Deccan and most importantly the disappearing islands of Sunderbans. Being a resident of Kolkata my concern for the people of these disappearing islands, was initially a selfish one - I realized that the deltaic islands are the only biological - buffer that protected eastern, north- eastern and south - eastern parts of India from the tidal surges and raging storms, which over the years have been gaining intensity - Nargis,

Sidr, Aila could have all devastated Kolkata. The low pressure trough would move towards central India, unopposed and cause havoc in the agricultural nerve of the country. The homeless environmental refugees would crowd the city I inhabited, not to mention the cross- border infiltration from Bangladesh along with trafficking of women, arms and ammunitions. The change I want to see is at Sunderbans at a micro-level. There is no point of dreaming of a pollution free India or an even more vague "betterment" of the country`s climate change scenario. The question we should be asking is how to make the difference at local community levels? How to change your present micro environment?

Owing to numerous college camps and school field trips to this region, the interest grew from mere self- defence, to an altruistic motive, and to an extent anger at the political listlessness and apathy. "Nature used to give us food and crops, now all it gives us is misery, a cruel sea that covers us in sores, destroys our homes and threatens to take our families' lives. We are living in hell." - rued Saraswati Jana a resident. Each evening tens of thousands go to sleep in fear of the sea. All they can do is pray to the Goddess BONO BIBI - "hey mata praan dao jibon dao" (goddess give us life)

For the islanders of Sunderbans, each day begins and ends the same way. As dusk descends, the people file back to their thatched huts in fear of the sea at high tide. By morning the dyke will be breached and saline water will inundate their cultivable land. Here in the vast, low - lying Sundarbans, the largest mangrove wilderness on the planet, Sugata Das, age 70, a relative is preparing to lose his third home to the sea in 10 years; here global warming is a reality, not a prediction.

Sunderban, is a collection of 4000 plus fragile deltaic islands of the Ganga Brahmaputra delta, where only 154 islands are inhabitable as they are above sea level, the rest are below it, as it, is a low coastal elevation zone. Since in this estuarine delta fresh water is a rarity, saline water is of no use to anyone the inhabitants of Sunderbans have built an earthen embankment 3400 km long enabling them to make an artificial reservoir of fresh water obtained from rain water harvesting, ensuring they can carry out daily activities.

Sunderbans floods twice a day during high tide, the embankment keeping the islands from inundation - but in case of severe storms this embankment is no match for the might of the waves as seen this year with AILA. With global warming and climate change, thermal expansion has increased the volume of water, the number of low pressure troughs over the bay of Bengal has increased, thus giving rise to more intense and more frequents storms devastating in nature. The aftermath of such storms leave people isolated on disappearing or flooded islands.

As it is, half the people live below the poverty line and are malnutritioned, living on less than 10 rupees a day. With ENVIRONMENTAL REFUGEES from other submerged islands, the already burdened islands have many more mouths to feed. Saline water makes cultivable land wasteland for 3 years, so agriculture the main source of food and occupation is an impossibility. The Salinity resistant variety of paddy has not delivered the desired results. There is a lack of potable or fresh water, people have acclimatized themselves to drinking saline water. With no fields to cultivate they are thus forced to venture into the creeks, for fish - seedlings or for fish, 10 hours every day in the saline water which gives them gangrenous limbs and sores also making them prey to the Royal Bengal tiger and swamp - crocodiles. Without any other alternative they have to venture into the forests crossing buffer zones, inviting the fatal - man - animal conflict. The men who have lost their only source of income and self confidence surviving on donations and relief items provided by numerous NGO`S - have ensured that the frustration has been almost cathartically been taken out on their wives, with domestic abuse on the rise. The" girl child" is being sent to Mumbai to be sacrificed at the altar of prostitution. Over the past 6 years, trafficking in sunderbans has increased by 30% compared to previous data. The word 'below the poverty line' does not exist for people who fight to stay "above" the expanding sea. The government`s involvement is pathetic - the officials live in their self constructed cocoons and urban bubbles. Relief work has not begun in many places MLA`S try to project sunderbans as a tourist spot and build luxury resorts without conducting an EIA - (environmental impact assessment) the "kuccha" embankment is yet to be cemented, even if it were, it would not withstand the erosive

power of the river or the tide - There is no time left to rehabilitate 70, 000 people to another location, nor make them self reliant, nor bring them back their land. I dread the cyclone which will hit sunderbans again next year - this time at 450 km/hr.

However a period of two months of research that I was involved in along with a NGO called NEWS (nature environment and wildlife society) has left me with some hope that there is change that I can make. Being a student has advantages, it is easier for us to communicate with the locals, gauge their difficulties as they refuse to have an open dialogue with the officials. The solution to prevent these islands from submergence lies in the "mangrove" plant or the "sundari" tree, which is an endemic species to the marshy deltaic islands. It has a tripartite function - firstly it is the only plant which acts as a bio defence for these human habitations- a row of sundari trees say about 10 metre in height can bear the brunt of the most violent of storms, minimizing damage. Secondly the sundari tree is a natural carbon - sink for the gases spewed out from neighbouring districts of industrialized Bengal. Thirdly the tree has pneumatophores which accumulate silt during low tide, in its pores, over months this accumulated silt, increases the land level. Last year to test our hypotheses we chose two different embankment stretches on Satjelia island. and planted sundari trees on one such stretch. After a month of recording, we saw the unguarded embankment suffered coastal erosion, while the sundari - guarded coastline remained unbleached.

The change I want to make in sunderban is - set up a project called "adopt a mangrove" whereby interested individuals, scientists, organizations, NGO`S etc will adopt a mangrove, by paying an annual sum for the well being of one stretch of sundari trees. In an attempt to generate employment for women, the funds received will be supplied to the women as remuneration for growing saplings in a nursery, transplanting them on to the embankment and ensuring their growth. The funder will receive a bi-annual report on the growth of the plant. The plant in turn will be named after the donor. Later women may form self help groups based on the lines of micro - credit in each and every island for launching their own bio- embankment, as no amount of cementing, sand bags, geo - tubes will keep the saline water out.

As TERI`S famous "lighting a billion lives "was an initiative to empower hundreds in the sunderbans with solar lamps, this movement too should gain ground as - all NGO`S, residents, renowned French bio- architect lohen Martinique, environmentalists and ex-forest minister for sunderbans Dr. Pradeep Vyas seem to agree that mangroves are the only ecologically and economically viable option.

People might question how do disappearing islands in the delta affect the rest of India? why should they be concerned? The only answer to that is that it will bring to every one`s immediate attention that climate change is not a mere topic to be debated in, schools, colleges, parliaments. A change in sunderbans will spark numerous micro - level community based action groups all over India. Saving Sunderbans will also mean saving an ecological and biodiverse hot spot and preventing the flooding of Eastern India and shifting of the low pressure trough from the Bay of Bengal to mainland India, whereby the rainfall patterns will cause havoc over the country.

The change I want to make is not easy, as I alone am not equipped to handle a project of this magnitude as I have received no formal training from an NGO, relating to action programmes and their implementation. The minimal funds received from the Global Humanitarian Forum in Geneva and British Council's low carbon future programme though can start, but will not sustain the programme. The political red tapism to start a new project is impossible for a 19 year old to cut through.

Thus the change I want to make is essential for the survival of people who know not what "Copenhagen" is nor what the UNFCC stands for, but all they ask is when normalcy will be restored in their lives, or for that matter when will the sea seem less hostile.

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Supriya Narang

The change I want to see could be multifarious. It could be as idealistic as ending of world poverty and hunger to as microcosmic as efficient water and electricity supply in my house. However, the change I want to see is the improvement of the education system. The reason this issue is so close to my heart is because being a student myself, I know how important education and literacy is. A sound education is the cornerstone of human development. There have been times when the sight of my maid being unable to read her son's letter has made me sad as well as indignant. Being a state issue, maybe revolutionizing the education system is possibly something that I as an individual cannot achieve, but that does not mean I become complacent in my own little world and forget about the millions of children for whom education is not only necessary, but also their political right.

In development economics, we are taught that education is an important "enabling" factor in fostering economic progress. Education has instrumental personal as well as social roles and is also an important tool in empowerment of the people. Literacy is an essential tool in a society where social interactions include the written media. It is also a catalyst of social change.1

The main three issues that currently plague the Indian education system particularly the public schools are accessibility, quality and affordability. Some of the measures that can be taken to improve the current system include improvement in infrastructure, appointing more teachers, organizing enrolment drives etc. Lack of accountability is also one of the major concerns in the Indian schooling system. The only way this can be improved is through ample participation at all levels, i.e. from teachers to parents, as well as bureaucrats and policy makers.

Also, the recent divide between private and public education is not only widening, but can also have serious social implications as well. This could lead to a further deterioration of government schools, which can be harmful as the demand for education is only going to rise with the increase in population. The rich-poor divide exists not only in the form of income, but also as a result of standard of living and in this regard education is an important determinant. There is a need for an urgent upgrading of schooling facilities, backed by strong political pressure to achieve this goal.

As a student, it might not be possible to address all these issues for me simultaneously or magically bring about reform overnight in the education system but then, it is possible to start small. Just because we do not have the power to formulate policies or have our opinions heard should not deter us from making a difference. Hence, the change I want to make is an idea that deals with improving the quality as well as affordability of education at a small level that can be scaled up also.

My basic idea is based on the redistribution and efficient utilization of books, which we know can be a major expense for a student studying in a government school. The detailed project proposal2 is as follows:

Objectives Of The Project:

To collect textbooks from private schools within the N.C.R. at the end of an academic session and then distribute them to government schools located within the vicinity of a particular school.

The collection of the textbooks will be done in February - March and redistribution in the first week of April.

Defining The Project Situation:

Currently, most students in private schools give their textbooks to the kabadiwala or as hand-me-downs to maids etc. Basically, the textbooks lose their utility once the session gets over and are almost treated like junk. On the other hand, for students studying in government schools, the expenditure on buying new textbooks can be a significant one and hence, many might rely on outdated editions or second hand copies. In this context, effective redistribution of textbooks can have a positive impact on the students their expenditure is reduced and the quality is better.

Action Steps:

1. Sending proposals to schools outlining the project and its objectives
2. Meeting with the Head of the Institution/Principal of the private schools to discuss the project
3. Obtaining requisite permissions to collect the books
4. Discussing the proposal with the Head of the Institution/Principal of government schools to discuss the project
5. Obtaining requisite permissions for the distribution of books
6. Awareness about the project in the donor school so as to encourage students to donate their books
7. Facilitation of a collection mechanism for the books such as drop-off points in the school
8. Screening of the collected books to ensure that they are in a usable condition
9. Distribution of books in the government school, as well as collecting relevant details of the students who avail these books such as class, phone number, address etc.
10. Regular follow-up with the schools to monitor project evaluation

Identifying Support And Resource Needs:

A dedicated team of volunteers would be needed to go and talk to the schools in December-January and obtain the requisite permissions and spread awareness amongst the students. Also, volunteers would be required to go to the government schools and talk to the respective principals about the project.

During collection and distribution, the process would be such that the books collected from a particular school would be distributed to the nearest government school so as to minimize transport and infrastructure costs.

Future Plans:

Presently, this plan would be implemented under the aegis of a nongovernmental organization (NGO) as a project. Initially, during the first year of operation, it will be confined to some parts of Delhi only, but subsequently will be scaled up to cover the whole city. It is also possible to have institutional tie-ups with organizations that run many schools, to facilitate central collection of books and generate more awareness.

To ensure more participation, awareness drives can be started in the month of January with the help of local media such as newspapers and radio as well as with the support of volunteers. However, collection of books will only be done at a school/institutional level and not individual, as that would not be logistically feasible. Similarly, redistribution will also be done at a school level only.

Eventually, the project can also be expanded to include the setting up of a library or a book bank which will include apart from textbooks, other important resources such as reference textbooks, old question papers, notes etc.

Conclusion:

This essay is supposed to be an individualistic statement on why we chose a particular issue and how as a student we can address it. I believe being a student that education is imperative in today's world not just for employment or economic progress but also for personal accomplishment. Coming from a privileged background, where as a student I've been fortunate enough to have access to the best schools and the best colleges, education is the one factor

that has made me the person I am. Going to a college like Lady Shri Ram everyday has inculcated in me the spirit of leadership and responsibility. As a nation poised to become a superpower in the near future, education is a topic we cannot afford to neglect. After I graduate, I would ideally like to be in a field like public policy or development reforms. However, as of now, the plan I've suggested is something that I can start working on right now and I indeed do plan to work on it during my December vacations.

Education is something that has been recognized as being fundamental to a child's as well as nation's growth; however, the attention given to it has not been enough. Effective utilization of the available funds can also lead to substantial improvements in the current system only.

The change I want to see, that is, improvement in the quality, accessibility and affordability of public schools in India has to start with the change I want to make, by providing students with access to textbooks to enable their studies. It might be a microscopic step in improving the education system but it is the net accumulation of such small steps by individuals that can lead to substantial improvements overall. Education is an issue of paramount importance, especially with the increased standing of India in the global context. A nation is only as prosperous as its citizens, and nation-building is in our hands. In conclusion, I would just like to quote what Gandhiji had said "Be the change you wish to see in this world."

References:
1. Jean Dreze and Amartya Sen (2002), "India: Development and Participation", Oxford University Press, Chapters 2 and 5
2. Project Planning, Monitoring and Evaluation (Module 8) of the Commonwealth Youth Programme - Diploma in Youth in Development Work (This module was referred to in formally drafting the project proposal. The idea and the concept are original works)

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"Promoting Democratic Journalism"

The more you begin to investigate, the more you educate yourself and understand where things come from, the more obvious things become and you begin to see lies everywhere. You have to know the truth and see the truth and the truth will set you free.

Part I: You Believe What You See

"In journalism, there has always been a tension in getting it first and getting it right."

Media Industry is one of the most widespread and far-flung sectors of Indian economy. It has been a constant source of information and entertainment since many decades. With its current value inked at 437 billion (INR) and growth rate of 18% (CAGR), it's easy to imagine the magnitude of media penetration in lives of 1.2 billion Indian people.

Talking about Media & Entertainment, one of the most accessible and popular sources available to Indian community is Television. This dummy box, sitting in our homes, emanates rays of light which control and decide the direction and graveness of thoughts propping in the minds of the viewer. It tells you the cricket scores, latest fashion trends to follow, food which is in season, celeb gossips, 10 vacation spots to die for, lingerie which makes you desirable and so on and so forth and we have no choice but to believe and follow.

Not only Television is a source of information, it is also a business and good business means good money. So with the viewer seated on his couch with a remote control in his hand which is no less than a detonator; over 400 channels aired on Indian Television hasten for content and stories which will put them ahead in the race of getting attention and thus the money.

This race, on one side, inspiring mainstream Media to disseminate data and information of events (like 26/11 attacks) at quickest possible pace also inhibits their ability to spread the interpretations and thoughts arising in the minds of common people from such events because by the time these thoughts arise, they have already moved on to the next big thing . The problem with such a race is that it puts public's interest in the backseat and pushes networks to produce unintelligent content. The sudden inundation of reality shows, obscene quizzes and bizarre swayamvars very well establishes this assertion. Engaged in this race, even the news channels who are otherwise responsible for informing citizens about grave social and humane issues begin to output celebrity updates, Page 3 events, ghost stories or advices on dysfunctional relationships. As journalism content continues its stupefying plunge, masses chase after such opportunities as their "claim to fame" thus distracted from real issues and incapable of critical thinking; hence leaving the whole society handicapped. There is an urgent need for reforming journalism standards and making it more meaningful and informative.

The country requires a stage, a stage where common people can assemble, ask questions, argue and persuade each

other about what this country has given them, taken from them and where is it going. A stage where people from all backgrounds, castes and regions can discuss and express their concerns and vision for their nation. A stage where a united and coherent India is the primary focus keeping aside all regional and linguistic discriminations and controversies.

In modern society, there cannot be a more far-reaching and influential medium of expression than mainstream Media. It reaches out to Indian masses irrespective of their age groups, location or occupation. If credible facts, objective information and real experiences & expertise is delivered in a concise and efficient manner, there is no reason why an average individual cannot be informed and empowered towards contributing to his society. But expressing oneself effectively through moving pictures and fitting sounds itself requires some skill.

Part II: The Past Is Changing

"Remember your past mistakes just long enough to profit by them. Some of the best lessons we ever learn are learned from past mistakes. The error of the past is the wisdom and success of the future."

Corrupted journalism is driven by mass acceptance. Media corporate firms monitor audience trends and base their product on publicity strategy rather than relevance of content. They easily attract and retain attention because their content is always a little "off the boundaries". Sex tips, wardrobe malfunctions, and celebrity gossips are all products of this approach. To challenge such a structure requires grave social issues coupled with strong presentation skills, credible statistics and captivating narration.

I want to promote documentary and short film-making in India by offering technical assistance and equipment to common people to bring forward the critical & overlooked issues in society and finally integrate it into mainstream E&M industry to provide a cross connected platform of thoughts and visions spread across the whole nation.

These documentaries could cover issues like:
• In a country with GDP growth rate of 7.5 per cent; over 40 per cent of our population lives below $ 1.25 a day

and 75 per cent lives below $ 2 a day. Are we turning into an autocracy with money and power in hands of a few? Where are the growth rates for poor?

• One third of India 1.2 billion people are malnourished due to lack of nutritious food and potable water Anemia affects 74 per cent of children under the age of three, more than 90 per cent of adolescent girls and 50 per cent of women. Infant mortality rate is 90 per 1000 and malnutrition is a factor that attributes to almost half of these deaths. Is this what it's meant to be like in an agricultural country?

As is apparent, issues could range from reservation in academic institutions to military invasions in Iraq. These documentaries will be individualistic statements of the maker through his skills of film-making. He could be a student, a lawyer, a teacher or a victim (terrorist attacks or natural calamities etc.) who wants to take a stand, tell his story in front of the society and put forward his perspective.

To realize this idea, we need more than critical questions and issues. We need people who can transform their beliefs and convictions into content which can be aired and viewed by people across the nation through Internet or Television.

Specifically following are the pre-requisites of film making:
• Hardware understanding (Camera handling and controls)

• Software Understanding (Movie editing and Sound synchronizing)

• Understanding of legal issues and constraints on broadcasting network

In these rapidly changing times where events occur at such a hasty pace, let it be floods, terrorist attacks, corporate scams or military invasions; this platform will present an opportunity to common people to step forward and identify fallacies in the structure, analyze them, discuss them and correct them. People will have the right and power to question the preparations, expenditure and mistakes involved in the preventive measures taken by the government so that these unfortunate disasters don't happen again. This will change our perception of the past and can be the founding stone of a

conscious society capable of questioning the proceedings in a free and democratic nation like ours.

Part III: My Contribution Is Small, But Sincere

"Never doubt that a small group of committed people can change the world. Indeed, it is the only thing that ever has."

I would like to offer my services in training and assisting interested people to equip them with technical know-how involved in movie-making. I could assist them in collecting stats and information, conceptualizing, storyboarding, pre-visualization, shooting and audio & video editing so that they bring out their thoughts, frustrations, grievances and concerns in the form of a visual which appeals to masses and initiate a movement towards building a united and prosperous India.

I strongly believe that all the phobias that our society drills into us, that we are weak or incompetent and our society is evil and so on and so forth, these are all unfounded and preposterous assumptions. If we can see beyond the bounds of money or bank savings or class or any such form of separatist identity, we will realize, we are all one, there is no other. Somebody has to step out and say it out loud and I want to facilitate and amplify this voice; the call of oneness.

Motivational autobiographies, degrading standards of journalism, lack of awareness and concern towards social matters shown by my peers and keen interest in film-making and movie editing has inspired me to come up with this idea of democratic journalism; Of the people, By the People, For the People.

My activities at college very well affirm my interests. I have been a part of department of CCTV which is responsible for multimedia content creation at BITS, Pilani. I have a sound knowledge of 2D, 3D software packages and video-editing software used in standard workflow. My project at APOGEE (annual technical fest at BITS, Pilani) was based on Computer Graphics. I am also a part of a start-up team at college committed at delivering quality software development and Consultancy solutions to digital Media and Entertainment Industry.

I would like to put this idea in practice and action so that we can erase the lines of all different kinds of separatism dividing us into irrelevant and meaningless categories and work towards one goal to achieve a balanced and blooming India.

"I am asking your help in a tremendous task of alerting and informing Indian people, confident that with your help man will be what he was born to be - free and independent."

All the statistics mentioned have been collected from World Bank Report Indian Urban Poverty 2009.

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It Is Meant To Be Implemented, Right?

In Ashutosh Gowariker's Swades, a heated debate takes place between Gita and Mohan on the floor of Kaveri Amma's kitchen. The debate is about things most commonly debated in India - the many development challenges India faces, from illiteracy and poverty to gender and caste discrimination. A point comes when Gita, frustrated, tells Mohan "The government is trying its best. It is also making new schemes".

Mohan, obviously dissatisfied, responds, "Is the government doing anything? Schemes... To make only schemes, or to allocate funds for them, is that the only task of the government? Whether these schemes are being implemented at the grassroots, whether the benefits of these schemes are reaching the common man, isn't this the concern of the government too?"

This debate between Gita and Mohan captures a basic feature of government schemes in India. Too often, large schemes are created, programmes with bigger purses initiated, and new laws enacted. Too often, these acts, programmes and schemes fail to generate the intended benefits. Too often, we hear intellectuals, activists and journalists repeat the statement- 'We need proper implementation'. Indeed, too often we find ourselves lost, wondering what exactly to do about these 'implementation failures'.

For the past three and a half years, as a student of Development Studies, I have been bothered by some of these questions. For the past 9 months, I have been involved with an initiative called Narega Sahayata Kendra (NREGA Help Centres) - addressing these implementation issues for the National Rural Employment Guarantee Act 2005 (NREGA). For these 9 months, I have realized that I am beginning to get some answers. This essay is about this exchange of questions and answers, and the changes that I can see and make.

So, How Did It Happen?

On the 29th of April, 2009, just a few hours after writing my end semester exam on 'Decentralisation and Governance', I boarded the Dhanbad Express to Ranchi. I was going to work with 15 other college students, 8 'local saathis' 3 doctoral students, Dr. Reetika Khera and Prof. Jean Dreze for the next 50 days. Our mandate - to carry out social audits of the NREGA, India's principal public works and social security programme, in three districts of Jharkhand and Chattisgarh - Sarguja, Palamu and Khunti, to create a Narega Sahayata Kendra in a block of each of these districts, and more generally, to make the NREGA work by ensuring - yes, you guessed it - proper implementation.

In the train, I found myself reading the NREGA 2005, the 'Operational Guidelines' issued by the Ministry of Rural Development and other documents created by the Right to Food Campaign ('100 Tips on Effective Social Audits' and 'NREGA - A Primer') as a preparation for the two days of training. My feelings swung like a pendulum - between excitement and fear - excitement caused by working with people like Jean Dreze and on important schemes such as the NREGA, fear because Rural Jharkhand and Chattisgarh are not exactly the safest places on the planet.

These social audits are part of the Rozi-Roti Adhikar Abhiyaan (The Right to Food Campaign) and done by a small research group which simply calls itself 'Research for Action.' Jean Dreze and his colleagues have been carrying out such surveys for the past many years, generating valuable research techniques as well as literature - some of which was valuable in the design of the NREGA itself. For this survey, they decided to enlarge their scope of actions, to create something long-lasting and scalable. Hence the Sahayata Kendra.

And What Did We Do?
After training for two days on various aspects of field research, 5 teams departed to carry out the social audits. Consisting of students, experienced researchers and local saathis, armed with various questionnaires, application forms, complaint forms, muster rolls and awareness material, the teams were expected to cover 2 villages and one NREGA worksite in a day. Their task - to bring back the true picture of the implementation of the NREGA after 6 days to the de-briefing.

Meanwhile, three other teams, similarly constituted, had to set up an Narega Sahayata Kendra in a block of the district. Sahayata Kendras are created with the aim of acting as a bridge between NREGA workers and the district administration. From previous surveys and social audits, it was quickly realised that while the block office is central to the livelihood of any NREGA worker (it is the place where she gets registered and gets a Job Card, the place where work applications are accepted and the place from where wages are released), most NREGA workers found themselves running cluelessly from pillar to post in the block office, often fleeced by agents and brokers. Many returned to their homes and villages without any success.

Proposals for Sahayata Kendras were drafted and submitted to respective DCs - who supported them. Empty rooms inside block offices were identified (there were many) to serve as the Kendras, and soon, Kendras were up and running. As expected, the presence of independent citizens in the block office checked the activities of the officers and cut the agents. Volunteers guided NREGA workers with procedures inside the block office, while also assisting them in getting their grievances redressed. At the same time, people were made aware of those procedures, so as to avoid dependence

on the Kendra. Indeed, some workers even came forward to volunteer time with the Kendra.

In the Kendra we learnt that job cards applications were often rejected because 'they were not on the proper form'. In reality, job card and work applications can be submitted on plane paper. Work applications were often accepted without giving receipts, which means that workers did not have any proof to demand unemployment allowance. Simple Implementation failures, created by a non-interested bureaucracy. Our solution - whenever this happened, we called for the Act and showed the relevant section. Simplified versions of the act were freely available first at the Kendra, and then at the block office.

In the field, we found it extremely difficult to find 'active' NREGA work-sites. Most work-sites had been abandoned half-way. As questionnaires were filled in villages, it was also found that the distribution of Job Cards had been incomplete, job cards had been hoarded by 'mates', and wages had not been received for a long time (wages have to be paid within 15 days). As these details emerged, the Sahayata Kendra in Khunti demanded explanations at the block office and created a press release. Jharkhand's newspapers next day carried the news item - "Survey Team Niklee, Narega Karyasthal Nadarad" (Survey Teams start work, NREGA work-sites difficult to find). The district administration's explanation - "Workers are lazy and uninterested in NREGA work".

Meanwhile, my team found one active worksite. Workers there had a long piece of cloth tied around their stomachs. Balbirji, our local saathi, explained - "Some of them have not eaten, for obvious reasons. But they have to work. So they tie a piece of cloth around their stomach. They don't feel the hunger. When extremely hungry, they tie a wet cloth. Sometimes, they wet it again, and tie it tighter." We felt repulsive. All the worksite facilities (First Aid kit, shade for workers, drinking water and creche for small children) were absent. They too had not received wages for the last 40 days. That night I learnt my first words in Mundari - Tyaar Mun Ma Tiktiki - "There is a lizard in your mouth".

At the de-briefing, as one team spoke after the other, similar issues emerged. Workers hadn't been paid for months in

other villages too, some had their wages pending from 2007. That clearly was the reason why workers were uninterested in NREGA work. Complaints for delayed payment of wages, hoarding of job cards, and applications for work and job cards which had been collected by teams were submitted the next day to the block office. Action along with a detailed description of it (in an Action Taken Report) was expected on complaints within 15 days, as mandated by the Act. The ATRs were never received, while some actions were taken.

Thankfully, the situation wasn't all bad. As Reetika and Jean explained that night, the results of the first week showed that the payment of minimum wages had become routine (an achievement given past experience), no evidence of corruption had been found, gram sabhas were active, contractors had been kept out of the NREGA, while workers were happier with the new system of bank payments.

As the survey progressed, more complaints of delayed payment of wages emerged. The Sahayata Kendra, in the meantime, was helping out NREGA workers visiting the block offices. To get a systematic view of delayed payment of wages, muster rolls and 'pay orders' were demanded. An extensive delay in wage payments was found in many work-sites - indeed, workers had become anti-NREGA because of this.

The Sahayata Kendras decided to ask for compensation for delayed payment of wages. The act guarantees workers that if wages are not paid within 15 days, workers are entitled to compensation of Rs 2000. 267 NREGA workers received this compensation - the first such instance in the country. Fines of Rs. 1000 were also imposed on Rozgar Sewaks and the Block Programme Officers of NREGA.

It is difficult to capture the complete story of the Sahayata Kendra in these few lines. I have not even talked about the public hearings meetings, verification of muster rolls, awareness campaigns, Rozgar Diwas, or the 'BDO Watch' organised by the Kendra - to see if the BDO and the BPO are available in their offices at office timings (the watch showed that the BDO was not present in his office 65% of the times. The BPO was only marginally better). It will suffice to say that while the survey finds out the actual state of implementation, the Kendra compares it with the desired state, demanding action.

Where Do We Go From Here?

Personally, for me, the answers are simple. I am still pursuing my masters in Development Studies, and I plan to make this the topic of my Master's Thesis, which, thankfully means more work at the Kendras. Jean and Reetika will probably be co-guides. I plan to follow this up with a PhD. It is quite easy to carry out such tasks as a researcher in development studies. For the moment, I continue to be a part of the Sahayata Kendras. What I am doing here is not unique. Many others are doing similar work, and I am glad about that.

For the Sahayata Kendras, there are many paths. Setting up more Kendras is a direction. All NREGA districts need to have regular social audits, something required in the act. Having more Kendras is not easy, and in the past 9 months, one Kendra was set up in Phagi block of Jaipur district. Another path is to have more social audits for other schemes - Bharat Nirman seems to be a potential candidate, and there are already some Jan Soochna Kendras (linked with the Right to Information Act) functioning in Rajasthan. Jean has extensive research experience with the right to food issues (PDS, ICDS and Mid-Day Meals) and would love the idea of Bhojan Adhikaar Kendras. As of now, it seems to me that effective and regular social audits can bring quite a revolution in the way government schemes are implemented. I am quite hopeful about Kendras, Research for Action and Social Audits, as I am about myself.

Before I close, I leave you with Gita's response to Mohan's rhetorical question. She says - "But what do you think the government is? The government is a system, of which the people are also a part. We, you, this village, all the people here are parts of this system. Now if there is any fault in this system, to correct it is as much the responsibility of the people as it is of the government".

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Challenge: The lack of good quality educational institutions at the primary level, professional level and the vocational training, for its growing population and absence of a competitive teaching workforce will be the biggest problem for India in the near future which can support the exponentially growing population by creating an equal proportion of engineers, doctors, economists, commerce professionals and most importantly the educated leaders which will guide this nation. The present scenario of educational inequity in the society where the creamy layer sends its wards to the best of institutions whereas the weaker sections either do not get a chance to receive education or they go to the government-operated schools which by enlarge do not possess even the basic facilities shall be removed and ensured that every child is getting competitive educational facilities and eventually an opportunity for higher education to fulfil his and his family's dream of self sufficiency.

We have a literacy rate of 65% and we must not forget that when the surveys for the same are conducted, the officials even count those persons as literate which can write A, B or C on the piece of paper even though they do not understand the collective meaning of a full sentence. So, by my estimate we still have more than 400 million illiterates above the age of seven who cannot even read or write in any language. In India there are 300 mil people who are BPL, without enough financial funds to guarantee a proper education they are left illiterate and helpless to break the cycle of poverty. Out of 100 children, 15 never attend, 50% of those attending drop out before V std. Every year around 20 mil children drop out after VIII std. Similar case is for the vocational training for the workers and the labours.

My focus will be on the primary education and the vocational training because due to the inability to read and write, there is an ignition to a vicious circle of a whole lot of serious consequences. An illiterate person is not able to take advantage of the government initiated schemes to curb unemployment like unemployment allowances and creation of more and more jobs in the public sector, minimum support prices for the farmers in case of natural calamities, free education provided to the children and the laws which make it essential to give minimum and equal wages to the males and females, various welfare programs for the women empowerment and the micro credit facilities to promote their own small scale businesses. The lack of vocational training for the involuntarily unemployed part of the labour force make them poor candidates in the labour market. Due to the inability to get a sustainable job (since they are illiterate and are not able to know about any job creation in their surroundings by the government or by reading the newspaper column), they remain poor and give rise to the problem of mass poverty. They do not get to know about the basics of life like hygienic conditions which give rise to many diseases spread by the contaminated water and food raising the medical problems (and since there is already an overload on the government hospitals they are unable to get good treatment), family planning due to which they have more children then they can sustain giving rise to over population

and problem of HIV-AIDS. They are involved in more of criminal activities to earn bread raising the threat level to the society. Due to the similar environment in a given locality, the leader from that area will also be predominantly illiterate and unaware of the functioning of the administration leading to a poor political environment. They are not able to oppose any kind of corruption also which they face in the public offices raising the problem of wide spread corruption and red tapism. Their children also remain uneducated and hence the circle is completed at the starting point.

What is the problem in present strategy: The government initiated programs are largely ineffective because due to wide spread poverty, both in the rural areas and the urban slums, parents want their children to help in their work and contribute in the family earning right from the age of 12 to 13 rather than procuring education which in their point of view is useless as they do not see any immediate outcome out of that. Government spends very low percentage of its income on a vital sector like education and that too is not used optimally due to the versatile problem of corruption and red tapism. Most of the NGOs which speak about sorting the similar problems are scams which are run by high profile socialists in which most of the efforts are dedicated towards publicizing the motto and the brand image building of the organization. They try to sort out the problems even without recognizing it at the very first place.

Most of the volunteers in the teaching NGOs are part time volunteers rather than being the full time fellows. Imagine a school in which the teachers are themselves changing frequently or in a much realistic situation, they are not coming at all. This creates a negative impact on the enthusiasm level of a child who is willing to learn and is coming to the place even after countering all the odds faced by him due to social pressures. Student dropouts due to the above are the main consequence.

What should be done: The government should spend a larger amount of funds and invest higher scale of capital in this cause making it a higher priority in the national development strategy. The teaching profession should be made attractive by giving much higher salaries as compared to the present level. More indirect benefits like travel allowances in railways, reward if a student in their class achieves a merit level in the board examination, bonuses if they have achieved a specified amount of attendance level in the class. These will help to build up a professional environment in teaching and will encourage the teachers to work harder for their own benefits. The government must provide certain incentives to the students themselves which will attract them to the classrooms like providing midday meals (this technique is found very effective in rural areas and the urban slums), awarding scholarships to the meritorious students and those with highest attendance by the local heads which may be collectors, IAS and IPS officers or even the sarpanchs.

More and more of private initiatives in the form of social entrepreneurships and local or national NGOs should be encouraged by relaxing the registration laws given the condition that these also should have some level of transparency and accountability towards the society so that anyone can monitor the authenticity of the workings of the organization. The major problem of the lack of youth volunteers is due to the lack of awareness even among the educated youth. They do not come to know of any such noble initiative which may be in need of them and they may be very much willing to go themselves. Introduction of the mandatory programs in the already established private and government schools which take the students on a visit to either rural or slum areas where there is still a lot of scope of improvement and the development of the educational infrastructure will help them develop the other side of their personality and they will start thinking of giving back to the society themselves.

What I plan to do: In the coming years, I want to explore challenges and opportunities in Indian education sector. I aspire to create an entrepreneurial venture with social inclination and make education more inclusive and in-sync with rural India through introduction of vocational education along with microfinance and technology. There are n reasons for this high dropout rate and low transition rates. During my voluntary experiences and further research, I have been able to get a glimpse of the problem. The reason for children not continuing their education after primary and post primary levels is financial as well as the

nature of education which is primarily academic in nature and not able to add any value to the life which makes education a drudgery and burden. Most of the children then struggle for a livelihood and stay without an education. I hope to make the education in schools more result oriented and provide functional literacy, that would enable children to explore new skill sets and open up a possibility of becoming independent. Something to facilitate 'Learn & Earn'. These can be very basic skills like wire fitting, plumbing, carpentry, typing, accounting, blacksmithing, book keeping, agricultural practices and animal husbandry, dress making, vehicle repair, etc. or some introduction to industries specific to the local natural resources like biomass, sugar, jute and corn. Government initiatives like ITI & ITC cater only at a level of higher education and have very limited infrastructure, and that also witnesses very low enrollments (2% formal +8% informal training). With the total enrollments at higher education being mere 12%, a majority of population is uncovered. The basic problem is that in rural areas children drop out of school due to lack of any applicability of education. By introducing short-term vocational courses in schools, solution to multiple problems of high dropout rates and subsequent unemployment can be expected. Microfinance can be used to encourage grass-root level ventures to strengthen local economy leading to sustainable growth. Application of ICT is plausible in both quantitative expansion of education and improving quality, efficiency, flexibility and making teaching more diffusive. India's biggest problem are not financial, there is a lot of money around… the sectors that comprise a nation's backbone are in dire need for committed and visionary talent to drive sustained progress. 70% of the country's population, mainly rural does not participate in the country's progress. This must change and can be done through power of education. I have a belief that people single-handedly can bring about significant change.

My experiences, educational backgrounds and the social entrepreneurship initiatives till now make me attached with the educational sector deeply:

College Life:

1. EDUCELL, Social Entrepreneurship Start-up: Founding member of Educell, a start-up aimed at mentoring the student preparing for the IIT-JEE exam through telephonic conversations. I personally was the head of the mentorship program in which I had put together a team of more than 300 IIT students and convinced them to volunteer a small portion of time to the calls from the mentees and guide them.

2. Working with Pankhudi, Mumbai (NGO): Which aims at promoting the primary education and health awareness in the slums of Suman Nagar, Kurla, Mumbai. I am working for the central public relations department. I have organized volunteer drives in the colleges of the nearby area and have successfully recruited students. I have also conducted a survey regarding the family details of the kids.

3. Entrepreneurship Cell, IIT Bombay: Deeply involved where I am constantly exposed to various aspects of entrepreneurship: idea formulation, painting a realistic picture, convincing others to join you, strict discipline, time coherency, strong team efforts, unconventional thinking, a strong will power to carry on and impact on the society.

4. GRA and NSS: I am actively involved in the IIT incubated organizations like Group for Rural Activities (GRA) in which we provide technical solutions and suggestions to the problems faced by rural areas like water drainage, electricity & waste material management and National Social Service (NSS) scheme which enables us to deliver our services to the slums of Mumbai in fields of education, health, hygiene, social problems of caste and lingual differences by teaching them the basic essence of life.

5. Electrical Engineering, IIT Bombay: Being from a technical background, I am better placed at giving unconventional yet technical inputs to some very basic problems regularly faced by people.

After College:

1. Fellowship as a teacher: In Teach for India to observe the challenges at the grass root level personally.

2. My own social initiative: The plans for which I have already discussed above.

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I firmly believe that Change is born out of realization or an awakening. Only when one realizes that something is wrong and needs to be corrected, does one actually start working towards change. I experienced this exact awakening, or shall I say "wake up call" recently. For the last six months or so I have been visiting a slum in Chennai, thrice a week to educate slum children. Before this experience I was blissfully unaware of the bitter reality surrounding me. I knew what a slum was and had also seen plenty as an outsider but, I had never actually entered one. This was my opportunity to actually see what a slum was like from close quarters. On my first day at the slum, I encountered "the inconvenient truth", literally. I saw the poorest of the poor huddled up in their huts, and the dirt which was a prominent resident. The first question that came to my mind "How is it possible for human beings to live in these conditions ? It's not fair!" .This question lingered on in my mind for days and even months to come. The experience has fostered a sense of guilt in me which seemed to say "You have everything you want and these people don't even have basic necessities which are required to survive!"

This essay will address this very issue "SLUMS IN INDIA". It has found a special place in my heart not only because of the sense of responsibility and guilt I felt, but also because of the emotional attachment I have with the children of that particular slum. I have seen those very children cry for hours on end due to hunger or the heat since there were no fans or electricity in the so called "play crèche" of the slum. I was really overjoyed when the children were moved from the old play crèche to the new one provided by the government. This new crèche had electricity, fans, a kitchen, storage facilities for food supplies and toilets, none of which were provided in the old one.

Being a citizen of India and a part of the next generation of leaders I truly believe the onus of setting things right lies on my shoulders. It is projected that more than half of the Indian population will live in urban areas by 2020 and nearly one third of this urban population will be slum dwellers. As a student I have always taken initiative to do what I believe in and I intend to do the same for my country. I told myself at this instance, that I would try with all my might, to change other people's lives in any way I could. This essay deals with what that change is, how that change will take place and the steps taken to bring about this monumental change.

While slums in any city are not desirable, the existence of them in many cities can have unintended benefits. For instance, slums are often the residence of migrants who come to big cities from villages because they provide affordable housing that enables the new migrants to save money. Slums also keep the wheels of many cities turning. The majority of slum dwellers earn their living in informal (but crucial) activities and therefore provide services that may not be so easily available through the formal sector. (Think of Mumbai or Chennai without hawkers, domestic workers or roadside mechanics.) Many cities and industries would simply come to a halt without the labour provided by slum dwellers.

Change happens only when something different is done to solve the problem at hand. So, to start off lets look at status quo. The UPA government has decided to take up the extremely ambitious project of eradicating urban slums in India in

the next 5 years. They have decided to launch the Rajiv Awas Yojana which is a project for providing affordable housing for the urban poor. According to newspaper reports this task seems impossible since, in cities the density of population is so high and there is already lack of space. I agree with this. My question is, where exactly will these "affordable houses" be located to house the lakhs of people in the slums? India needs a more practical approach to the serious issue of slums. I have a mission of my own to deal with this.

One very important fact that has to be understood is that these slums cannot be eradicated completely since there are thousands of people living in them. It would simply be impractical and insensitive to displace these people from their homes however small they are. Where will they go? After extensively pondering about this problem I have realized that displacing people is not the pragmatic solution, neither is it the possible one. THE PRINCIPLE BEHIND MY MISSION WILL BE " IF YOU CANNOT ELIMINATE THE WHOLE SLUM, SOLVE THE PROBLEMS INSIDE IT". What are the exact problems of slums? They are unhygienic, disease prone areas, overcrowded, don't have safe drinking water and no sewage treatment. The key lies in solving these problems. Then, it dawned on me that if we solved these problems, a slum would not be a slum anymore. In fact, I would call it " A HOUSING SOCIETY FOR THE UNDER PRIVILEGED". So, my mission is to improve living conditions in slums so that they will not look like or be called "slums" anymore; it's as simple as that. My vision is transformation of slums into hygienic and safe housing societies, since they cannot be done away with.

Before getting to the steps or solutions to solve the problems stated above I would like to answer one final question. How am I going to use my youth, energy, enthusiasm and qualifications to make this change? I have always been a person who has taken initiative and lead from the front if I have felt for any cause close to my heart .As a student sitting in one corner of India, it is indeed difficult to take upon such a mammoth task. I would like to build myself a career in politics since I believe that the only way to get things done in any country, especially India, is to be part of the government. It's the truth we have to face. I believe in change and want to make it, after all history is made by people who wanted to make a change at some level or the other.

If someday I have the opportunity to be part of the government and have authority, I will definitely implement the following steps to solve the problem of slums in context with what I have written earlier.

1. There has already been a slum clearance act since 1970, as well as slum clearance boards in different states, but there has not been any recognizable change. If I were a member of the government I would take into account the serious issue and constitute a slum development standing committee at the centre comprising representation from slum dwellers, NGOs working with them, Local authorities as well as the national government to work together (since this is a national problem). The committee would not only be held responsible for upgrading the existing slums in their respective areas, it would also take measures to control and prevent new migrants from entering the already overcrowded ones. The issue of slums in India deserves a separate committee in the government since the problem will persist otherwise. This step will not solve all the problems at hand but it is necessary to progress towards the solution.

2. The centre should provide finances and resources to local authorities to deliver services and infrastructure to the urban poor. Where do all the finances come from? The government should take up the responsibility to start up a special fund and be accountable for its distribution. Results have to be expected and for that reports of progress have to be submitted quarterly.

3. TACKLING THE PROBLEM OF LACK OF HYGIENE IN SLUMS: The main solution to this problem is EDUCATION AND AWARENESS of the slum dwellers. This might have already been done but obviously not well enough. A slum can be cleaned once or twice but after that it shall have to learn how to clean itself. As a student, I am already playing my part in this process through my visits to the slum to educate the children on various issues and

problems affecting them. Two questions arise, What is the awareness going to be about? And how is it going to take place? To answer the first question, the awareness and education is going to be about a hygienic lifestyle and a detailed explanation of the various diseases spread in slums (and of course how they are spread). The awareness of the impacts of these diseases on humans will instil a sense of fear in them and will definitely bring about a change in the way they look at the dirt around them. This is not only a short-term solution to the mess in slums but also a long term one. I believe education and awareness is the key to solving most of the issues that hound India today.

How is this awareness and education going to take place? NGOs are the answer. There are a number of social workers, doctors and volunteers working with NGOs and willing to lend their valuable time and services to this noble cause. They are going to be the ones responsible for the education of slum dwellers on a large scale. Centres should be set up in every slum in the form of a room to accommodate a few people at a time for the awareness sessions. The various social workers and doctors who volunteer (there are a number of them in the country) to carry out this task can take turns educating different batches of people in these centres. The solution to this problem lies in the above plan, but only if carried out efficiently. I would like to appreciate the work the NGOs have already done but the reason they have not got required results is that there is no cooperation and support from the government. The committee I spoke of before will eliminate this very problem.

4. TACKLING THE PROBLEM OF OVERCROWDED SLUMS: I believe that there is one lasting solution to the problem of overcrowded slums in India. Let's look at the reason why people actually come to the cities from villages to work. They migrate to cities for better pay and more opportunities. Therefore, in order to prevent urban decay and avoid creation of more slums the government needs to carry out rural improvement plans. The need of the hour is to improve rural infrastructure, bring in electricity to the as yet unreached areas, and make education and employment available to the rural folk, as well as other civil amenities like drinking water and proper sanitation. If the attractiveness of the rural villages improves there might very well be a reverse migration.

5. TACKLING THE PROBLEM OF UNSAFE DRINKING WATER AND WATER BORNE DISEASES: Usually in slums women collect water from tube wells and use it for cooking and drinking directly. A new, extremely cheap (but less known) technology called Bio sand filters (BSF) can be used at the community level to solve the problem of unsafe drinking water. This technology has been installed in slums in Madurai and has worked wonders. The government can change the lives of slum dwellers through safe drinking intervention and thereby reducing water borne illnesses. An investment here can considerably reduce the spread of diseases in slums.

These were my solutions to the issue of slums in India. I'm already doing my bit to solve this issue and hope to continue on a larger scale in Parliament some day.

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Introduction

India today stands at the doorstep of a new Asian century, where the world will be powered by minds and machines of the East. As reported by Fortune recently, the best performing immigrant group in the US in terms of doctorates, technical education, innovation, entrepreneurship and tax revenue is the Indian immigrant population. It also has the lowest crime and high school dropout rate as an ethnic minority. Yet, back home the three biggest scourges continue to be poverty, illiteracy and crime. My vision and my statement are founded on the belief that inherently as a people we are natural leaders, thinkers and innovators. However there is a crisis of institutional mechanisms to bridge information, motivation and opportunity deficits. The other problem is that of national distraction. There is a feedback mechanism through which poverty increases illiteracy, illiteracy leads to poverty of both idea and ideals in individuals which makes it easy for crime to fester. But it is unclear whether the chicken came first or the egg. Our defence budget is _ % of the total expenditure of the revenue while the resources spend on traditional law enforcement (including police, traffic, tax officials etc.) is _ % of the budget. On the other hand our education expenditure is_. It is my belief that when poverty and motivation deficits (in terms of having constructive goals in personal development) foster crime, the government spends revenue on law enforcement rather than addressing systemic issues. The primary preoccupation of the government becomes either one which focuses on preventing and prosecuting crime or bridging the unemployment gaps. These unemployment gaps and crime levels would have been dramatically reduced if in the first place if our focus was education and fostering innovation and entrepreneurship. The question to be asked is how does a government prioritise spending and focus on different sectors. If it leaves the mainland and borders undefended, there could be more chaos. But if doesn't urgently address the opportunity gap among youth, there will be never be a decrease in such spending and national preoccupation.

The change I want to bring is something that will seek to bridge all these deficits through a youth movement that is entrenched in the system of formal education rather than being voluntary and left to NGOs. It will require no extra spending by the government, but merely political will to execute the ideas. It will also fairly apportion the task of job creation, employment and opportunity building between individuals and the state. The subsequent paragraphs will address the problem as I have identified it, comparative perspectives from other democracies in empowering youth and my own experiences which have shaped my ideas. The solution I propose in the last section will introduce specific measures to instil a value system through formal education that will ultimately feed into the task of national building.

Our Current Education System: A Baring of Known Secrets.

Currently higher education in India is fairly rigorous when it comes to medicine and top institutions like IISC, IITs etc have good technical and pure science skills. But all to other engineering and pure sciences/

commerce universities in the country rely on the rote method form of learning, are not rigorous and force students to supplement classroom learning with tuition classes (which also are geared towards cracking exams and not learning the subject). An evaluation of question papers in universities like Bhubaneshwar, Nagpur and other B Centres shows the questions are easily predicted by solving papers from 1990 - 2009. The curriculum includes information about the Indian economy which would horrify any economist from the post liberalised set up. In technical courses while the content is not archaic, my experience has shown the strange phenomenon of my engineering friends often not knowing what distinguishes a piston from a spark plug in a real vehicle. In fact when I was a child my grandfather, an engineering graduate from 1949, would often take apart his Maruti 800 to fix it himself (despite being a businessman post retirement who could afford a mechanic!). Apart from the sheer joy of doing things oneself, I find that my generation has produced engineers who are only geared towards the back offices of Microsoft. The other problem, which is more worrying, is the unidimensional nature of the technical syllabi. They have often no component of economics, history and other humanities subject. This I believe is a major cause of general apathy towards the task of nation building in the young generation. 96% of all students interviewed in a survey recently (in their final year of engineering) had never picked up a newspaper apart from reading the sports section. This is a severe information asymmetry which feeds into the motivational deficit.

On the other hand primary education statistics would put the GDP to shame and the pre matriculation dropout rate would belie any growing economy. Even in existing schools teacher absenteeism, arcane pedagogy and unrevised curriculum is a huge problem, add to which the lack of role models in immediate surroundings, essentially makes an average child in India handicapped in all the above ways described in the introduction: motivation, information and opportunity. The Teach For India program which puts the best students from the top courses in the country (from IITs to IIMs to St. Xaviers) into a 2 year teaching fellowship, found drastic results - 4th grade kids who were taught by TFI fellows in municipal schools in Bombay had a 120% improvement in reading and writing skills, a 68% improvement in maths skills and fewer

than 3 kids dropped out after one year as opposed to the 15 per batch of 100 as was the norm. If one might look at this experiment and apply it in the national context, a glimmer of a solution can be seen. I believe that every child in a classroom is one less child on the traffic signal, one less drug dealer, one less homeless scavenger and one less voter who can be bought. I also believe that one child in the classroom from a humble background, is one more doctor in the government hospital, one more civic engineer in the water department, one more honest voter, and one more responsible parent for the future. My solution therefore Centres around creating a method where those who are privileged enough to receive higher education, will be able to motivate those who underperforming in bad schools/dropping out, and children from these humble backgrounds in turn will sensitise the privileged ones to the task of generating opportunities in the country itself and imbibing civic responsibility in themselves. It is almost like a reverse osmosis process!

The Journey

I decided to become a lawyer after reading about Teesta Setalvad's work after the Bombay riots in bringing those responsible in the state for inciting violence. A lot of my values of secularism come from my grandfather who was a freedom fighter and my other grandparents who saw religion only as a means to do charity work, but not as an end in itself. My parents were also staunchly development oriented in their work. As an architect my mother focussed on sustainable low cost housing using local materials in slums and my father declined recruitment after IIM-A to take up watershed development in the North East. Therefore my desire to be a lawyer was in large part because I am an output of my family's values. But I also recognise that I think today in a certain way because of the role model effect and the family environment. On the other hand a child who faces a lack of role models both at home and in school, and has no opportunity to exploit any ideals which seep through other media, will ultimately deaden that part of his brain to avoid frustration. In my education at law school we have been given a free hand using the shade of the university's canopy to achieve more than just classroom education. To this we have a Law & Society Committee which seeks to engage the role of law and lawyers in shaping society's major issues today. As a member of that committee I started a school project in

my locality which would give NLSIU students the opportunity to meet with children of municipal schools once a week and organise activities like essay writing, parliamentary debate and mock street plays for legal awareness. Similar activities on a large scale are done by the student run Legal Services Clinic. I found during this experience that a lot of prejudices come from upbringing and the only alternate environment is the school. So when students from an essentially liberal background disseminate knowledge among school students, the impact is tremendous. We found that the argumentative quality of students improved when they were supplied reading material on climate change, human rights and casteism in India. There was a huge information asymmetry which existed which we had to bridge. To this end I have now started a group which will design a curriculum divided into two semesters which will bring up important social and civic issues for discussion in these classrooms once a week - a cross between moral science and "general knowledge" classes which are held in most schools without any goal. In this process when i came across the Teach for India the first time, I actually saw the large scale impact of similar ideas tangible on students. The other impact which was even more significant was that students who took these classes (along with chess, carom and dancing) from NLSIU, so a significant softening of hard headed values and career plans which centered around the corporate world. In the long term i believe that every one hour spent with the children will translate into a lasting impact on the mind of the 20-22 year olds who participated in the program. In future some day they might take up a project which will directly impact the country's underprivileged in a positive manner. The following paragraph will put forth my formal proposal:

The Plan!
The plan has two objectives: firstly, to provide motivation to those with resources to put their learning into the country's progress and to provide motivation to the underprivileged to remove their crutches of information asymmetry and opportunity dead ends. Secondly, it will generate an innovation bank by nudging brilliant minds to use their knowledge to find solutions specific to India's needs. In this regard note must be made of Israel's 2 year military conscription, which according to The Economist fosters networks between unlike minded individuals across sectors,

encourages free thinking, and sparks innovation through a de-hierarchised system of team work. Note must also be made of compulsory internships for degrees in Germany and compulsory arts electives for undergraduate degrees in the US with a compulsory American History course. My proposal therefore suggests the following:

1. The HRD Ministry issue a compulsory requirement of passing Indian Political History course (including the passing of the constitution/constituent assembly debates) in every undergraduate degree in the country, technical/non technical. This will ensure a deeper grounding of constitutional values of liberalism, tolerance, secularism and social equality among the young.

2. The HRD also make it compulsory to have one elective course every year on topics ranging from sustainable development, poverty economics, human rights, sociology and international relations in all technical courses. It be made compulsory for arts graduates from a selected network of top universities to teach a course in any technical institution for 3 months in order to obtain a degree.

3. I propose that law students in the 5 year program have a clinical course introduced for taking up a specified module in municipal school in their areas on topics of social importance. This module can be designed in conjunction with top students and respected teachers various fields. The module would include requirements of mock parliaments and other exercises being taken up. Similarly Engineering students have a clinical requirement of teaching Science and Maths at secondary levels in municipal schools in their locality for a period of 3 months to satisfy their degree requirement.

4. The other plan I have is to design a common portal linking all law schools, IITs, IIMs, major medical colleges and pure science colleges together to form an innovation forum. This would inspire college students to pick up trends from each other and supply cogs of big projects. For instance somebody starting a company for IT services to farmers could take help from a law student in compliance problems, who could take help from a

software engineering etc. This common forum would be linked to regular feeds in Facebook and Twitter and would include all college presidents automatically through an assigned email id (which would remain constant no matter who the student president becomes). This forum would also have space for job postings and internships b professors/public policy employees in the government who seek technical research from students.

5. Another component of my plan is to create an annual competition for students of all fields to come together for a "Robin Hood Month". 200 members would be selected on the basis of their ideas and contribution. This would involve 20 cities at a time where these members would screen impactful movies ranging from the light like Swades to the hard hitting like "An Inconvenient Truth". They would organise street plays on topics like caste politics, corruption, war and climate change. These would be targeted at street kids, municipal school, even expensive elite schools (because i believe that it is a bigger crime to have an enabling environment and resources, and yet be apathetic). An essay competition in 20 major cities for high school students would also give space to 20 students from 9th - 11th grade to join in this band of travellers.

6. The last component of my plan would have the Robin Hood band propose ideas to the government which could be implemented in the areas of agriculture, environment, medicine and law. These ideas would be drawn from within the aforementioned forum, the band members and through a sustainable development idea contest nation wide. This lobby group would be used to advance those programs and projects which the youth believe are important for nation building. Funding for the band and the lobby group would be drawn from major corporate with a high social responsibility track like Tata. I believe that visibility is also a key to motivation in the education sector and competition enhances quality. I think all of these aspects would neatly tie in together to address to a small extent at least the motivational, information and opportunity deficit of the nation.

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Introduction

Ask any IITian about social entrepreneurship as a serious career choice, a disapproving grin will dawn upon their face. Through a sophisticated reasons that they will present to you, it isn't difficult to see their inclination to keep life simple, easy and what is commonly called here 'peaceful'. In last three years at IITM, I have observed that while education and entrepreneurship are the two most often discussed topics on the campus, there isn't even a reasonable fraction of students considering implementing their ideas in education through entrepreneurial ventures.

Education is something that I have invested a lot of time thinking about merely because of the fact that as long as I remember I have found myself in this education system. For most part of our early lives, education is the single activity that takes a lion's share of our time. While schooling is a major activity for a thirteen year old adolescent in some areas, it is just a collection of a withering school building and absent teachers for others. About 40 percent of the enrolled students drop out by standard 5 and few go on to complete their matriculation. While a variety of reasons contribute to this, the lack of well trained teachers often leads to disinterest in schooling, especially in the rural areas. My vision is to overcome this challenge presented by the education system through social entrepreneurship because I believe that when the government is ineffective in solving the problems of education, youth must use their entrepreneurial spirit to deliver innovative solution.

Youth Entrepreneurship and Education

Being seen a sleeping giant till 1991, the Indian economy has woken up to become the fourth largest in the world. While this growth continues, underdevelopment still prevalent in the rural areas in terms of social indicators of education raises concern about the nature of development accompanying this growth. If one were to go by the numbers, India has a pretty robust infrastructure for education consisting of 7.7 lakh schools at the primary and 2.9 lakh schools at the secondary level. However, this huge infrastructural base hasn't been able to produce a human capital powerful enough to make illiteracy a thing of the past. Illiteracy not only continues to persist it expands in real numbers. With 357 million illiterates India has the unique distinction of being home to the largest number of illiterate people in the world. Most of these people live in rural areas where education might not figure exactly at the top on their priority list due to the poor quality of education in the existing schools. Despite a high enrolment rate, I have found in my experiences in working at the National Service Scheme, not many students are able to solve basic problems in mathematics and science. It wouldn't be wrong to say that primary education India is still at only at a primary level of development.

Now, where does the solution to all this lie? If we were to travel back in time and ask Joseph Schumpeter for a solution to removing old and ill-functional institutions in the society (like the ones affecting our education system), he would perhaps answer: entrepreneurship. Schumpeter claimed that entrepreneurship replaces obsolete economic activities by innovation,

thus creating new and better opportunities for efficient institutions to shape the economy. It is in this Schumpeterian spirit that I present my solution for improving the quality of education in rural areas.

Schools on Air

Universal primary education is about provision of equal opportunities. But equal opportunities, I would say, is a myth. When the difference between reaching out to various groups is not taken into account and same provision is made for all, it is hardly likely to result in equal opportunities. The change that I want to make relates to the provision of quality education to students in the rural areas. My vision is to make this change using the youth potential for entrepreneurship.

How I plan to do it? Through the 'FM Schools' project.

I have always believed that if resources do not exist, one must create them. The lack of human capital for rural education can be addressed by creating an alternative resource pool that is able to reach out to a larger number of students than traditional schools. The 'FM schools' project is one such idea that I, with another friend of mine, want to pursue after graduation.

The What: Given that teacher absenteeism and lack of skilled teachers are huge problems in rural areas, my vision for rural education looks at overcoming this problem by setting up FM radio stations in rural areas for education. These FM stations shall air lectures as per the syllabus of the schools. Given the high rate of drop out after standard 5, the stations could take up the syllabus of standard sixth to ninth as their focus area.

The How: FM school will pool in together the best teachers from the neighbourhood and provide innovative ways to teach concepts to the students. The syllabus used shall closely resemble the syllabus prescribed by the state boards. So, essentially, the programmes aired by the stations would be in close synchrony with what the students are expected to learn at school.

Though there have been similar efforts made earlier through the radio, there has been none which actually provides a chapter by chapter study for the students and is shaped as per local needs. Schools on air shall be based on FM system and hence shall be localized by its very nature which allows for flexibility in course adopted and scheduling of programmes.

I have often found through my work in the National Service Scheme that students find it quite difficult to learn something when the text is not in the dialect they speak. An often observed problem with rural school education is that the teachers might not actually know the local dialect which becomes an impediment in to the learning process. The inherent advantage of the FM school project is that a large number of students can be reached out in the local dialect which itself can be a learning enhancer.

My vision is to scale up the FM education project to cover those parts of India which are most inaccessible to provide equal opportunities to all.

The Why: The FM education project is capable of addressing three objectives which, I believe, are very important for a successful education system. They are: expansion, inclusion and quality.

The project, by its very nature, can reach out to a larger number of students with a relatively small pool of human resource. This can help expand reach to the areas which are often neglected in government projects. The involvement of local youth in these entrepreneurial initiatives can further in the expansion of the project. The expansion can further be capitalized upon because the innovative teaching methodology adopted by the FM stations will ensure that students take greater interest in understanding the subjects and perform better in examinations.

The system serves the purpose of inclusion by cutting across caste divisions, overcoming gender biases and providing equitable opportunities for all students despite regional and linguistic barriers. The syllabus in these virtual schools could be modified to teach, in addition to the usual syllabus, those things that provide better employment opportunities in the region of operation.

The quality of education can be expected to improve this programme because the project shall get together a pool of

best teachers in the neighbourhood to improve the quality. The quality could be further be improved by employing students from across the country for internship with the project where they could contribute their useful ideas and remove bottlenecks to provision of quality education.

Why do I think this would succeed? Because the project offers a moderately large coverage and high quality education at a low cost. A FM radio customized to the frequency of the station can be made available for as low as Rs. 30. The cost of setting up a FM radio station could be borne by the entrepreneur who could charge the panchayats under the service area for subscribing to the service. A major part of the costs in setting up the station would be in getting the licence for the station. Here, an approach of public-private partnership could work where the government could be approached to subsidize the licensing costs because of the non-commercial and socially fruitful nature of the enterprise.

All's Not Perfect

The FM education project seeks to overcome the problems caused by poor quality of education in rural areas. However, it must be understood that the project is only a transitional alternative due to the lack of proper infrastructure and human capital in the rural areas. In the long run, there is absolutely no substitute to better schools and classroom teaching. Hence, in the long run, the FM school project can seek to supplement the education provided in schools. But the project can nonetheless fill the yawning gap between the promise of the Indian school education system and its delivery.

This or That?

If Atlas was re-sculptured, I believe, he would be moulded in the image of an entrepreneur and a teacher. They together hold the world on their shoulders. Entrepreneurship in education holds the potential to bring about a change in the education system that most of us have envisioned but never put in practice. In the end, do I return to being that apathetic IITian who will grin at the prospect of taking up social entrepreneurship as a career choice or be the change-maker which we need for a better education system? The choice always rests with me and on this day I choose to pursue the latter.

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Akhila Babu T S

The Change I To See; The Change I Want To Make

Nobody can go and start a new beginning, but any one can start today and make a new ending. This is the exact reason why we should strive in the direction of a positive change so that there is a better tomorrow. As a teenager, I crave for change. A change in the way the political system works, a change from the unreasonable laws and norms and a change from very many other factors. But as a practical person, I know that there are two kinds of problems in this world- those that you can change and those that you need to accept. Out of those problems that can be changed, as a well-informed citizen, I know that one area that requires major change is our ENVIRONMENT.

Although people are now aware of the plight of Mother Nature, the seriousness of the impact of many of our activities has not yet sunk in. Before we go deep into that, we need to first understand the importance of women in protecting the environment. The word 'nature' has a sense of feminity attached to it and that relationship has spread over the entire womenhood. As Salvano Briceno says many of the environment protection activities must be looked through a gender perspective. A woman understands nature better and realises the implications of destroying it. So obviously, it is but natural to involve women and make sure that their participation is significant at an international level. Women have immense knowledge about environment as she is constantly in touch with it as she goes about her household work. She also plays a vital role in moulding a new generation. She can pass on her knowledge and concern for environment to the next generation through her children. If our medical researchers work along with the women from rural areas, they will be able to discover several hidden treasures that'll help us in curing many of our incurable diseases. Moreover it is crucial to mobilise our human resources for the protection of environment rather than using up our capital. Protection of nature is a drain on our development funds. When we have unlimited human resource, why waste our financial resources??.

Now it is not enough that we talk about liberation of women and set up organisations where they can take part. What is lacking is a congenial environment for them to develop. They can develop only when their habitat is safe and secure. Environment activists often talk about conservation and protection of habitats of different species of animals and birds. Protection of human habitat is equally important. And here protection pertains to maintaining a basic level of security, prosperity and health in our homes. But this is lacking in many of the homes, especially in developing countries. Women live an oppressed life. They undergo domestic violence and are considered a burden which leads to crimes like *female infanticide*. Ellaine Enarson talks about "gendered terrain of disaster". Disasters unfold in the world shaped by culture and class, race and ethnicity, age, physical ability and other power relations- including those based on gender. All these are factors that has led to one of the most grievous human crimes that is existing in today's world-***Human Trafficking***.

I, like millions of others, was unaware of the magnitude of this crime until I learned more about it through a society called MCCSS. At the end of their briefing session when I heard about the experiences of being trafficked from the victim herself it made a huge impact on me. It was only when I heard it from the horse's mouth did it strike me that it could happen to any one of us, rich or poor, literate or illiterate. And then and there, I decided to take action and voice my opinion by devising a viable solution to this problem.

Before we act against any issue, we need to find out the causes for its occurrence. UN defines human trafficking as the practice of people being tricked, lured, coerced or forced to work with no or low payment or on terms which are highly exploitative. It includes prostitution, forced labour and other forms of involuntary servitude.

The operations of traffickers are highly efficient and organised. It is so well planned that a recruiter will not know who is in charge in the hierarchy above or below him. Same applies to every other person in the chain. Human trafficking is divided into **procurement, movement, initiation, selling and control.** We need to study each stage in detail.

Procurement is done on an international scale. We believe that people who are poor, downtrodden, facing oppression from family and society are their targets. But it is not so. Although such people are easy prey (they are lured with the promise of better life, job opportunities and shelter), girls from wealthy families also get trapped into this. Pimps recruit young, vulnerable women in malls and clubs by befriending and creating emotional and drug or alcohol dependencies to entrap them. Coercion and violence is also used.

Another way of procurement is through marriage. After marriage, wife goes abroad dreaming about a happy life with her husband. But then he exchanges her to traffickers or forces her into prostitution. In US, often servicemen marry prostituted women around military bases abroad, bring them to USA and pressurise them into prostitution. A large number of foreign military wives become victims of domestic violence, displaced or homeless and end in prostitution. Husbands, boyfriends, uncles and older brother act as pimps.

The next step is that of initiation. 20% of women have intimate relationship with the men who pimped them. Emotional and physical coercion and pornography are used to break their resistance to entering prostitution. For some stripping is the entrance point into the sex industry after which they are constantly pressurised into prostitution.

Once the initiation is completed, they make sure that the women are under their control by denying them freedom of movement, isolation, controlling money, threats and intimidation, through drug and alcohol dependencies, threatened exposure of pornographic films and physical and sexual violence. Some are held captive and some were not free until they paid off their accumulated debts.

The men who bought women came from all ages (15-90) and socio-economic classes. Majority of the men were married. Many of the women who are subject to trafficking sustain injuries such as broken bones, bruises and cuts requiring stitches. Most of the women contract sexually transmitted diseases while in the industry. All the women are said to suffer emotionally, 80% feel depressed while 50% feel hopeless. 1/3rd of the women experienced rage while 64% of them have suicidal thoughts. Half of the women have begun to use drugs and alcohol after they entered the sex industry to numb themselves from the trauma of unwanted sex.

Thus we see that it's high time that we took an action against this injustice. I know that this is not going to be easy. I'm not making a mistake about what I'm up against. But like John F Kennedy has said, "Our problems are man-made. Therefore they maybe solved by man"

The joint venture to protect the environment in the form of Joint Forest Management (JFM) has caught my attention for quite sometime now. It is a partnership in forest management involving both the state forest departments and local communities. Villagers agree to assist in the safeguarding of forest resources, in exchange for which they receive non-timber forest products and a share of the sale of timber products. This has become extremely successful in safeguarding and increasing the forest resources. If so, then why not implement the same policies so as to safeguard our women??

I am suggesting a programme called Joint People Management (JPM). This should also be a partnership involving the public, government and the NGOs. **The following should be the objectives of the programme:**

Protection of women against trafficking and improving their social status.

Rehabilitation of victims of trafficking

Providing an enabling mechanism for the participation of public and a platform for NGO participation

Facilitating institution building and allowing flexibility in their formation

Eliminating the involvement of commercial interests and middlemen in the working of the organisation

Flexibility in its general rules and working

Collection and utilisation of funds in such a way that transparency, accountability and efficiency of use are attained.

There should be a four-tier structure of organisation-local level, including the villages and the districts, called the Local Level Management (LLM), state level called the State Level Management (SLM), national level called the National Level Management (NLM) and international level called the International Level Management (ILM). LLM should concentrate on the rehabilitation of victims, local information collection, decentralisation of power and spreading awareness among the public. At the state level, more importance should be given to programme implementation, coordination of activities of NGOs and LLMs, community participation, collection of record regarding the functioning of LLMs etc. Compilation and maintenance of records, supervision of SLMs, distribution and allocation of funds to SLMs and LLMs, appointment of committee heads, establishments of vigilance units that are in charge of functions that are confidential in nature etc should come under the purview of NLMs. Overall impact, future planning, direction and strategy, collection and distribution of funds to NLMs, maintaining

constant contact with the international intelligence agencies etc will be undertaken by the International Level Management Committee.

The main function of JPM will ofcourse be to break the international racket that is indulging in human trafficking. As we already know, there are five stages in trafficking-procurement, initiation, movement, selling and control. We need to set up our forces against each of these stages at each level, i.e., there will be anti-procurement force, anti-initiation force and so on. And each level will report to the higher level following the chain if hierarchy from local level all the way to the international level. Moreover at each level there will be a rehabilitation centre in charge of councelling and rehabilitation of victims.

The viability of the programme depends on the source of funds. We need a huge initial investment and also a considerable amount of working capital. Activities like micro planning, awareness generation, training, skill development, managerial capacity building, enterprise development and many others that are crucial and which are required to be undertaken on a regular basis, will require a separate fund. Thus other then the ordinary methods of fund collection like membership fees, boluntary contribution etc; a budgetary allocation is to be created for JPM. Now the fund thus collected need to handled efficiently. For this we can adopt the structure followed by the National Bank For Rural Development (NABARD). The funds collected through various sources must be transferred downwards from the ILM to LLM following the chain of hierarchy. ILM should allocate fund to NLM committees according to their need and this pattern should be followed through out the organisation.

For increased efficiency, JPM should closely work with the intelligence and investigation force of each country. Moreover an international data base should be available so that anyone at ant time can gain access to the information they require. This will ensure a joint international effort.

Another problem we might face is deficiency of human capital. Enough number of people who are efficient and willing might not be join JPM. One way of solving this is to make it mandatory for all the students who are pursuing

any kind of social science course, to work for JPM for a year or two. They will be getting their degree based on their contribution to JPM. This will ensure a pool of young minds with innovative and enthusiastic ideas. Thus the quality of the programme will improve manifold.

The most crucial raw material for JPM will be the lead or the information that they can get from the victims themselves. Recently, USA has introduced a new visa called T-visa, which would give trafficked women residency status in USA. This visa has been proposed for undocumented persons who have been victims of severe abuse in USA, and who can provide material information to a crime. I believe that, if this visa is introduced worldwide, it will act as an incentive for victims to open up, which will in turn help JPM to achieve its aim.

As women, I think each of us shoud become a part of JPM and protect ourselves and our fellow women. As men, I think each of you shoud initiate this movement since it is your social responsibility to do so. I am ready for this change. Are you??

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Raghav M. Iyengar

The Change I Would Like To Bring About In The Country - An Energy Conscious And Smart India: 2030!

Come this December, Copenhagen shall witness one of the historic moments of this millennium, where the COP 32 protocol is expected to be approved, passed and brought into force by the accepting nations. The COP 32 meet expects to issue policies which would help all nations take care of the issues related to climate change and thereby propose solutions which would be feasible for undertaking. One of them (and for most of the nations, the only one) is the policy related to cutting down CO_2 emissions, apparently an improvement on what was formally accepted by most nations in the Kyoto Protocol of 1996. India although, was a notable exception as the protocol could not provide India with a feasible proposition, considering the vast population's needs that needed to be catered to. Now, why am I bringing such an oft debated international topic such as climate change into the picture when a change required for our nation is to be discussed? Well, primarily because my last statement clearly indicated India's current lack of resources to provide electricity to its already bulging-at-seams populace and if India needs to satisfy its citizens electricity demands, there is no way we can keep the required CO_2 emissions under control as is required by the nations acceding to the fact that they have a role to play in keeping the global warming phenomenon under control. This is essentially a catch-22 situation for India and I believe the best way out, in general, as well as in keeping with accordance to the above mentioned 'crisis', we need to have

an Energy Conscious and Smart India, by the year 2030. I have deliberately mentioned 2030 and not 2020 as most people seem to be shouting from every rooftop because I sincerely believe that ten years from now is not exactly a timeframe within which we can realistically achieve all targets set for the nation. Twenty years from now on the other hand can at least provide a realistic estimate of where we would/could be standing and provides us sufficient time for contingency planning, in case remedial measures need to be taken.

Let me explain by what could the vague term "Energy (Conscious and Smart) India" imply. I shall deal with the terms Energy Conscious and Energy Smart in two segments.

By Energy Conscious, it is implied that every citizen of India, be it the person who uses Energy (in this essay I shall restrict myself to the usage of Electrical energy and thereby, Electric Power) or the set of people who are responsible for formulating policies related to Energy usage or energy distribution or disbursement of funds for research on energy and its alternate sources, is aware of what and how he/she is utilizing this gift of science. A person who uses electricity must realize that there are on an average 550 million Indians[1] are reeling without electricity, and over 700 million Indians use some form of biomass as their primary source of fuel. But a chance survey would make one realize that most people having access to electricity might not really care about utilizing it well, leave alone conserving it. In this regard, people believe that observing 'batti-bandhs' or similar campaigns might help conserve energy but what we are really

doing is not altering the lifestyle of the average Indian, and to a good extent in this case, the average urban Indian, if I may. What would really help the cause would be if people could realize that they can do their bit by incorporation of such simple utilization principles like switching off appliances or power sources when there isn't a total necessity for the same. This is easier said than done as even people who tend to follow such principles or have switched to the same, feel left out of the crowd and due to the implicit discouragement from their peers and alike, we have oft opted out for the easier route of shutting of power for a specific period of time as per our convenience and have carried on with our lives, not necessarily realizing the impact. I am not denying the effectiveness in all the 'batti-bandh' campaigns but I believe that it's still the easy way out and not the right way out. The simple strategy which I have mentioned needs to be inculcated in every person be it 6 or 65 years old. As a result of which, a performance metric could be provided whereby if a certain locality starts exceeding the minimum threshold set for it in terms of energy consumption, a blackout could be accounted for, with the blackout period being equivalent to the amount of excess units consumed which will have to be accounted for in that period. This might seem an unfair metric because the people who consume lesser than the average threshold are also affected but by being so, they will tend to take action against the 'wrongdoers', who shall also feel the pinch in their lifestyle otherwise. Now the question arises as to who shall decide the metric and how ? I shall discuss it in the "Energy Smart" section of this essay.

Another aspect of energy consciousness, which in certain terms may also be called Energy awareness is the fact that most of the work being done today is jargonized, which results in the layman not understanding what needs to be done on his/her part to ensure that we and our future generations needn't suffer. Awareness here is again on two fronts:

Awareness regarding what needs to be done regarding conserving energy or rather as I would like to call it, better utilization leading to minimizing wastage of available energy.

Awareness regarding the current technologies in use which can help in our energy utility aspect or generate energy, in places which need the same.

Regarding my first point related to awareness, I believe that it confines more to the urban area as wastage of energy is a primary issue only when Energy is available in the first place. I believe to sort this issue out, primary and secondary education need to have courses on energy management. More importantly, they should not be just theoretical; in fact, primary weightage needs to be given to the practical aspect in the same. In this way, we are paving way for the future citizens to be conscious and aware of our energy needs and what they need to do as responsible citizens. I believe that this is very much possible, considering the fact that foreign languages and vocational subjects are offered as compulsory courses in most secondary education schools and this subject (if we could call it "Energy Management" for the essay's convenience) being of national importance, (as with reference to the current energy crisis faced by our country whereby we are forced to negotiate at Copenhagen), I'm sure it can be implemented pretty soon, and earlier the better, if we are to keep 2030 a realistic target.

Regarding the second point on my energy awareness issue, I believe it targets the rural areas primarily (although the urbanized lot can also take a leaf out of the same). Rural areas too need to have some sort of 'energy management' education but in the form of the panchayats emphasizing on the usage of innovative yet cheap technologies in the market. The problem which is primarily faced in the rural areas is that they have a huge inertia against changing or shifting to a different way of living, primarily due to the low capital which is in question. For example, introducing CFLs in rural areas might backfire simply because a small 5 watt bulb in electrified areas might be 10 times cheaper to a similar wattage provided by CFLs. The fact that CFLs consume lesser energy (up to 80%) and that they save a lot more in the long run needs to be emphasized for them, in a simple and lucid manner. In fact, innovative funding schemes can be provided for, like say EMIs of Rs. 10 per month per household whereby it becomes a cheaper alternative or by showing them a demo of how each household would save and in what period of time. Hopefully, such techniques can

bring about awareness regarding existing technologies, of which I have just touched the surface in the above mentioned points. This kind of awareness is prevalent to an extent in most urban areas and hence, I have not felt the emphatic need for urbanized places.

Now, coming to the "Energy Smart India" aspect.

This aspect, I believe should be with the way policies are framed by the Planning Commission of India as well as how these policies aim to promote the "Energy Conscious" aspect throughout the nation, apart from how they aim to meet the energy needs of the nation without violating international norms to which they may or may not agree at Copenhagen.

Thinking of Copenhagen, I cannot but help digress here from the fact that economically speaking, what is actually being aimed at through current policy plans is pretty much unfeasible compared to another existing solution. To illustrate this point, I shall use the research of climate economist Prof. Richard Tol, which shows that carbon cuts required to keep the average global temperature from rising by 2 degrees Celsius, which most groups including the G8 feel is necessary, would cost the world an equivalent of $40 trillion a year, while the available estimates show that Global warming as such will induce a welfare loss of $3 trillion a year. The 40 trillion dollars estimate is assuming efficient technology being deployed to cut emissions in necessary places but it could easily be much higher. Thus, rather than concentrate on Carbon cuts, I feel that as per the above research it's imperative on our part to focus the funds (say of the order of $ 100 billion a year) to essentially stabilize global warming, not in the coming few years but maybe by the turn of the century at least. This is primarily because current existing non-fuel sources would not even get us halfway through the emission cuts envisaged by the bureaucrats unless we invest heavily on the research and development of such technologies.

Going by what I mentioned in the above paragraph, I believe India should take a cue and increase its investment on R&D of alternative energy sources since we cannot afford to go the carbon cuts way because of the burgeoning population's needs. Economically speaking, Research spending is much cheaper than carbon emission cuts and is therefore more favourable. Research spending need not be done only by the government but it needs to be encouraged by private players in the market. The government could incentives it by providing tax benefits for the same over a certain period of time. The reason why the government cannot be the sole player and private parties are required is this: The Indian government has a possibility of a change every 5 years and we cannot revise our policies as per the governments' whims and fancies, by keeping the citizens' energy requirements at stake whereas private players are less affected and the policies envisaged by them could help shape the future in a 'bright' way.

Incentivization needs to be done for institutions to provide courses, at an undergraduate level as well, extrapolating on my point regarding "Energy Management" courses in primary and secondary education. This is essential because this is one serious way in which innovative technologies can be developed to harness alternate sources of energy rather than relying on foreign sources. The reason why I want to eliminate our dependence on foreign sources is because "technology denied, is technology gained" as was the case with our Nuclear energy programme in the late 70s. More so, because the technology developed in foreign conditions need not necessarily work in Indian conditions due to climatic variances and maintenance issues; the latter arising due to lack of technical know-how, whereby the courses at undergraduate and graduate level might help bridge the gap. As mentioned earlier, grants towards developing emerging technologies like Fuel Cells and to what is touted as solving India's power requirements in the future, Solar power apart from investing on teaching nuclear energy technology could prove to be quite fruitful. Once again the grants need to be provided not on the basis of whether the West is investing on the same, which seems to hamper most of the researchers' plans of providing independent solutions for solving the energy problems, or they need to at least provide scope for the improvement of existing technologies by Indian researchers by promoting their products, instead of promoting just foreign developed technologies. This might seem the old-fashioned way of using khadi over foreign/imported clothes during our years of freedom struggle but a blast from the past might prove useful here as without promoting Indian research products, researchers might

lose interest if they are hindered by such practices at every stage of their product development plan. The reason why I emphasize this is because of certain events in institutes like IITs themselves which were developed to be world class centres of technology and scientific learning, but practices like the ones mentioned above might lead the Nehru's dream being left a dream.

Thus, to conclude, I would say that 'smart policy making' and their implementation with the single objective of promoting research and development of energy producing technologies, and making the citizens aware of such practices apart from educating them on 'utilization of energy' rather than 'usage of energy' might just go on to make the difference India needs to satisfy its growing energy demands, while at the same time, keep itself within regulations which might bind emission cuts at Copenhagen or any other place where it may need to observe protocols. Care should be taken that decisions made must ensure a long-term benefit and not just short-term goals although it would be great for us to achieve both, although the current situation might make it seem unlikely.

Thank You!

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Rohit Keshav Pothukuchi

India's Attitude Towards Pollution: The Need For A Garbage Revolution

Introduction: Facing The Problems Of Everyday Garbage And The Indian Attitude:

Almost every one of us at some point has felt disgusted at the sanitary and cleanliness standards of our nation. How many of us haven't witnessed junk being flung out of train windows and garbage being strewn across streets and alleys? India has become a nation where garbage has become a given, a country where we don't even stop to think about waste. This problem is embedded in our very culture and instincts and we believe there is simply no solution to this garbage and pollution.

Why is it that our railways and highways have become centers for dumping waste, and every street corner has a pile of trash? Why is it that we Indians step outside our four walls and become completely oblivious to the condition of our surroundings? There is a definite psychological attitude towards polluting and garbage in India which needs to be changed.

If one were to go abroad he would find that Indians abide by the cleanliness standards of the foreign nation, but the moment an Indian steps foot in his own nation he will comfortably throw his garbage out the window without a second thought. What is it that has compelled us as a nation to be this way? Some would say that changing this mentality is absolutely impossible. But I would certainly beg to differ.

The change I would like to see in this nation, is an attitude shift towards a garbage and waste conscious society, where garbage is used to generate revenue for local communities and teach our society about the importance of a clean and livable environment. Essentially I want to change the mentality of India towards pollution and garbage. I believe this is possible, and I will explain how this can be done. Quite clearly this is a vast and difficult seaming proposal. Yet such a psychological change can be brought about in this nation through a number of schemes and proper changes which can practically and easily be brought about at a micro level and later at a macro level.

But Why Have We Become So Careless?

Chucking a piece of paper out the window of your car or on a train journey is a normal phenomenon in India. But why is it that we as a nation have become so? Is there a particular difference in our culture? I would suggest that there is.

There could be a number of reasons why we Indians are accustomed to the habit of chucking things out of our windows, and onto the streets.

Practices of ancient times were often centered around returning materials back to the earth, and therefore many items used in prayers and other rituals were thrown into water or put into the ground. Let us take an example of how this could have evolved. Once upon a time banana leaves were often used to serve food, when they are thrown into water, they degenerate and are organic, if one throws plastic plates into the water, this causes pollution.

Society was defined by social boundaries such as caste, many members of society would feel insulted to have to clean, and therefore this practice itself may have been absent.

Thus a number of theories may be evolved as to the actual reason for our culture of simply throwing things out. How we actually arrived at this stage is irrelevant, what we can do to change it is what is of import.

A Practicable Answer: The Change that We Can Make:

Indian Garbage: A Golden Opportunity:

India is a land filled with garbage, and this garbage is an opportunity to change the way society thinks, by offering them a chance to clean it up. What can we do with Garbage, and how can we use it to change the thought process of our society?

Garbage, if sorted properly can be sold to a number of companies which recycle materials such as paper and plastic. This is income which can be used by the people recycling the garbage. If we wish to see people become conscious about what they are doing with their garbage, then we need to give them an incentive to do so. Cash is always a strong incentive, even if its in a small quantity!

There is a solution to changing the Indian attitude towards garbage and that is introducing a system, which educates society about sorting garbage, and its value, by creating a network of both schools and groups who recycle as well as companies who buy this sorted junk.

There are a number of major areas where we may wish to focus. As far as schools and institutions are concerned recycling in colour coded bins and selling trash is a great idea.

Making the Impossible Possible: A Practical and Easy Idea to social change:

By developing a strong network and program which have a good brand image, and by showing people that recycling and composting can create revenue as well as help create a more comfortable environment, we can change people's attitudes slowly.

There are two major types of locations where we can cause a great change:

1. Educational institutions and schools: We tend to always focus on large and established institutions, but what about the small ones? Every school produces waste. This can be sorted so easily using color coded bins. Imagine hundreds of thousands of schools each recycling its paper and plastic, whether it be in a small village or a large town. Trickles of water make a mighty ocean, and a large number of such recycling centers could lead to great revenue generation.
2. Vegetable and Flower Markets: These are everywhere in our nation. And one will inevitably find a heap of organic junk lying around. If a small area is designated for compost, then this waste can be turned into useful organic gardening soil, which can be sold.

How will it work: Branding and Implementation are keys to success:

The Institution And The School:

As there is an abundance of paper and plastic, and many universities and schools do not recycle. These schools and universities with a little bit of education can be taught to label dust bins and teach children to throw trash in the right bins. Children will learn that such junk is worth money and is harmful to the environment, and will therefore recycle it.

A universal coding system (for junk which can be recycled) to be used all over India in a number of schools should be developed. By creating a trendy and chic looking brand and image for the program, children of today's younger generations will be enthusiastic and pulled in.

The Local Market:

There are millions of local markets in India, and a huge amount of rotting organic waste in each of them. Imagine a nation where hundreds of thousands or even millions of tons of organic waste are being put into compost and being used to create natural and organic compost which can be used to help grow more food and aid farmers.

A Network and Strong Organization:

To truly implement this change, not just at the local level but at the macro level, what needs to be present is a strong network and organization which facilitates these activities.

What essentially must be done is establish a strong organization which facilitates:

1. The educational program and the colour coding scheme as well as the composting scheme: In markets locals can be asked and taught to put organic waste into the composts, they can be rewarded by allotting some of the profit from sold compost towards developing the trade. In the school scenario children will be taught the importance of the scheme and of recycling and what a difference we can make to our surroundings. Anyone can understand the concept of different coloured trash cans for different garbage; it transcends language and is universal.

2. A Strong network of purchasers and takers for the garbage and recyclable junk along with a transport chain: If the organization along with some help, possibly from the govt. can find buyers for the recyclable materials, either locally or elsewhere then there will be a steady flow and system which will allow revenue to roll in. This revenue can go towards improving our society. Drops of revenue from each small school and compost project will come together to create a large sum of cash.

The endless possibility and scope of such a program: The change this nation needs:

This program could start at the smallest village to the largest city and still be 100% effective. We can create a network which will enhance and spread a culture of responsibility across our nation, which has been absent for years.

Children of generations to come will benefit from the knowledge and hands on recycling attitude which they learn in school, and as younger generations change, the nation will change and the psychological shift we wish to see will finally become a reality.

The Result:

Imagine a nation where millions of people strive towards a cleaner tomorrow, a nation where thousands of tons if not millions are recycled to create effective products and generate revenue for the development of our culture and nation.
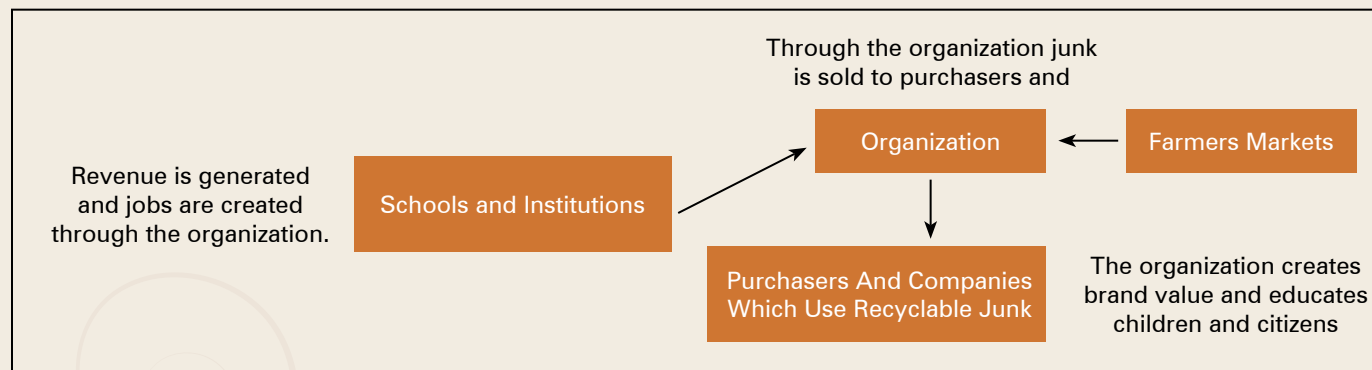
Imagine a responsible tomorrow. This is the answer to an age old problem. Let us eradicate our nations attitude towards polluting and look towards a better India.

Let us bring about a Garbage Revolution.

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Lets see how such an organization can truly help facilitate a Garbage Revolution:

Through the organization junk is sold to purchasers and

Revenue is generated and jobs are created through the organization.

Schools and Institutions

Organization

Farmers Markets

Purchasers And Companies Which Use Recyclable Junk

The organization creates brand value and educates children and citizens

S. Swathi Meenakshi

A scene from the movie "Charlie and the Chocolate Factory":

Wilder: Did anyone ever tell you what happened to the little boy who always got what he wanted?

Charlie: (with eyes flying out like a saucer) NO!

Wilder: Well, he lived happily ever after!

Cut back to reality. Now, that is what the world wants, rather needs. When all our needs are satisfied, no matter what, (the ideal situation all of us want to be in) is when happiness reigns. Happy states are healthy states and hence the most preferred by all. A happy world devoid of all maladies that plague today's world is my vision fro the future.

The world is growing but human ties are shrinking. In this context, to review a list of realities that suck the happiness out of today's world would be pertinent. But before we do that, a short history of man, his needs, his past is presented. Man has always been greedy. Greedy to conquer what is not his. To extend his power over the lesser privileged and the history of our land has not been any different. India has been a land of diversity - an amalgam of people who differ in everything from language to dress to food to more importantly beliefs. Now while the monarchs ruled small kingdoms in India, the rest of the world was witnessing change too. The British empire was growing into one of the strongest ever and truly the sun never set in the British empire. We began to feel the British presence. Slowly, yet steadily, we began to become slaves to the British masters who cleverly used the 'divide and rule'

policy. Years of slavery later, like the light at the end of the tunnel, we used the strongest weapon thus far known to man and drove them away. That weapon was AHIMSA - the way of love. I am recounting this story here because this is the one I know best. This is a part of my past from which valuable lessons have to be learnt. It is a past that I value and strongly relate to. These lessons are more appropriate today even when kingdoms have vanished and colonies no longer exist. Time might have passed but today's world is still caught up in a situation that can be likened to the past described.

We lived through the Godhra train attacks, we silently took the Mumbai blasts, we got slightly agitated but no ore about the attacks on the Parliament, we again silently took the Mumbai 26/11 attacks, we hear stories of suicide bombers, serial killers, mass bombings in Jammu and Kashmir almost everyday. If this is the situation in our country the world over situation is no different. Eight year old Gia is splattered in blood of her own parents her childhood wiped away in seconds and her world falling apart in front of her own eyes. Twelve year old Devanathan is carrying weapons that belie his age in the deep forests of Vavuniya. This is no different from the plight of Salim who has to live through similar horrors everyday. The one word that has made them all lose the simple joys of childhood, a secure family and growth environment is WAR. A war waged in the name of land, in the name of jihad, in the name of truth and in the name of seeking peace for their brethren. Ironical isn't it?!

Now imagine a world where tolerance is the order. A world born out of love, sustained

by love and growing in strength nurtured by love. Imagine a Gandhi walking again along the border that divides Israel and Palestine, in the forests of Vavuniya and in our very own beautiful but forsaken land of PoK shouting for peace, raising the voice of non-violence and flying the flag of love. Imagine a world where people are vaccinated against hatred. A VACCINE FOR HATRED. Yes, that is the change I want to script. The very change I want to see.

The next most pressing problem is that of Poverty. A lot has been done and a lot more has been said about this. From the slums of Dharavi to the residents of Malawi poverty is something that plagues the entire world. Many reasons as to why it exists can be debated upon. But the change is something about solution and not about the problem. So here I present a small story of what human will and perseverance can do to poverty.

William Kamkwamba was born August 5, 1987 in Dowa, Malawi, and grew up on his family farm in Masitala Village, Wimbe, two and half hours northeast of Malawi's capital city. The second eldest of Try well and Agnes Kamkwamba's seven children, William has six sisters.

William was educated at Wimbe Primary School, completing 8th grade and was then accepted to Kachokolo secondary school. Due to severe famine in 2001, his family lacked the funds to pay the $80 in annual school fees and William was forced to drop out of school a few months into his freshman year. For five years he was unable to go to school. So, he self-educated himself by going to the library and has built windmills from basic things such as trees native to the region. His story is in fact published as "The Boy who harnessed the Wind". Today, William attends school at the African Leadership Academy. He has also give talks at TED and is an invited speaker at the Aspen Ideas festival.

His is a story of not giving up. Like before, the change needed to combat poverty to truly eradicate it lies not in policy changes or perfect implementation of plans that look grand on paper, but of change in attitude. It is a battle of strengthening the human spirit, the will to stand and see beyond the problem, the will to finally achieve happiness and triumph. That is what makes the change sustainable. Everything else would fall at the slightest touch but not an inspired mind.

The next biggest malady is Ignorance. In the past we have always seen that a change in the society has been brought about by a revolution - Industrial or more recently Computers that have taken the world by storm. By the presence of newer inventions, we are subtly conditioned to think along certain lines. It has been observed for example that the clock came along after the Newtonian image of the world as a giant clock like mechanism, a philosophical notion that has the utmost impact on man's philosophical development. Implied in this is the image of the cosmos were ideas about cause and effect, ideas about the importance of external as against internal stimuli that shape the every day behaviour of all of us today. The clock also affected our conception of time so much that the idea that a day is divided into twenty-four equal segments each of sixty minutes has become almost literally a part of us!

More recently, computers have created a massive revolution. This has resulted in a flurry of ideas. The one technology that has almost become a habit with all of us just like eating or breathing is googling! Such is the reach of technology.

DISCOVERY!
APPLICATION!
IMPACT!
DISCOVERY!

It is a chain reaction. This innovative cycle feeds on itself sowing the seeds of change. Now comes the question so how does technology help to make the world a better place?

Technology, according to me, is the best bet against Ignorance. Here is a good example of how technology works:

An Indian physicist puts a PC with a high speed internet connection in a wall in the slums and watches what happens. Based on the results, he talks about issues of digital divide, computer education and kids, the dynamics of the third world getting online.

New Delhi physicist Sugata Mitra has a radical proposal for bringing his country's next generation into the Info Age.

from a Businessweek Online Daily Briefing,
March 2, 2000.

Edited by Paul Judge

This happens to be an unconventional way of dispelling ignorance and (the results have shown) a damn good way at that!

The second story is that of a Fiji-ian - Arieta Gonalevu. Her latest challenge is to light up the only school on the South Pacific island of Tongariki using solar power. It won't be easy. Tongariki, which is home to about 500 people in five villages, doesn't have roads or airports. Even cargo boats don't stop at this island in the Vanuatu archipelago, about 1800 kilometers off the coast of Australia.

It's just the kind of assignment Gonelevu likes: a nice, old-fashioned engineering challenge—how to provide power in a robust and cost-effective way—that will also have a huge impact on people's lives.

Back home, the story of the IIM-A graduate who threw his 'secure', well-paid job to the winds to start his own food catering services employing lesser privileged youngsters creating a black hole of opportunities and lighting hope in the lives of hundreds is well known. For the record, Sarath Babu is his name.

His mother, Deeparani, the sole bread winner of a family of five children sold idlis in the morning, worked in a mid-day school and later in the evening taught at the adult education program of the Indian government. All this to feed her young little son and send him to school. When this young boy entered the hallowed portals of The Indian Institute of Management, Ahemedabad, she was truly rewarded. But, the boy had different thoughts. He turned down a lucrative and seemingly safe offer from a multinational company and decided to tread the road less taken. That has truly made all the difference it can.

Initially, his decision to start a food catering service was reciprocated with great skepticism. Today, we better know this boy as Sarath Babu, Entrepreneur who not only made profits for himself but had a social cause to supplement his vision. Food King employs people from predominantly poor families. With a goal of adding about 15,000 more employees in the next five years, Sarath Babu's intention is to support their families and help them lead a better life. Given this, Sarath Babu is truly the change we want to see.

But by technology, I don't mean the seven live bombs that we have sitting prettily in our own country. Nuclear weapons of mass destruction in the name of power production is a very evil means of putting technology to use. However justified, the Chernobyl is an incident that we dare not forget. And given that, dismantling of all nuclear 'power' producing stations which I see as bombs ticking ready to go off any minute is the change I want to see. A pretty tall order it is!

In an era, where people are running madly chasing one material thing after another, the truest change lies in bringing about a paradigm shift in the way of thinking, in the way in which we strengthen the human spirit, in the way we take and replenish love in the bonds that we create with others. This is the change I want to be a part of resulting in a world that will experience a tsunami of happiness. Here's wishing a happier, healthier world filled with love, peace and tolerance. This is my vision for the future.

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Inclusive Development - Ice-Cream For All...

The sun danced over my head while I strained to look at the road ahead. The scorching heat and the warm winds did nothing to make the situation any better. In the blinding light, I saw a hovering spot that seemed to come closer. Wondering if it was the temperature playing with my sanity, I cupped my hands over my forehead to peer at the looming figure. Soon enough, I could hear the pattering of tiny feet. A tiny, scrawny, brown and completely naked, hardly a year old child appeared running towards me. With a tightly scrunched up fist and no second glance at me, he ran past. I followed him with my eyes, amazed at the ability of the boy to run soleless on the baked earth with an imminent smile and shining eyes, bright with joy. Suddenly, from apparently nowhere, an even tinier being, this time a girl, appeared, running after the boy. With my curiosity increasing every second, I followed the two children running with the wind. The girl caught up with her leader and laughter sprinkled their path as they sprinted across the cracked uneven earth, deftly avoiding rubbish heaps and jumping across open drains. Finally, when the running came to a standstill, I looked up to see the reason that had brought the children to a panting halt.

The Ice-Cream Wala

The little ones, who were barely half the size of his container excitedly reached out their tiny palms to exchange the coins that they had held tightly gripped for orange ice- cones on a stick. With smiles threatening to pop out of their faces, they ran, their laughter and the little drops of the 50 paise ice-cream, their only trail.

To these children and hundreds, why thousands more like them, the non-existent permanent place to call home, nutritious food, clothes, hygiene, sanitation, access to healthcare, electricity and quality uninterrupted education, can be easily resolved by the existence of a 50 paise orange ice-cream cone. But for how long can they be denied their basic human rights, as granted by the Indian Constitution?

I witnessed this scene and many more as part of my field work in Gujarat. I had been assigned to survey a temporary relocation site to assess the quality of life, access to education, healthcare, electricity and sanitation and related conditions, as compared to the nature of the lives they had led, before relocation, by the Sabarmati riverside. Due to a beautification project commissioned a few years ago, thousands of families by the riverside, who had settled there for over 50 years, were forced to uproot themselves and shift to a temporary relocation site, on the outskirts of the city. Slums were razed down by massive bulldozers if the denizens refused to budge from their homes. Some families collected their meagre assets and scampered away to different parts of the city, while others trudged along to the new site.

Having lost hope in ever regaining their lost lands or being allotted the new houses that needed to have been constructed and ready for occupation before the start of the project, they picked up the remaining broken shards of the semblance of their lives before and

began putting them together. The comparatively better-off dwellers raised houses made of mud, while the poor ones built thatched huts or worse, lived in the open.

Unable to afford the travelling expenses to retain their old jobs, men fell out of employment. With the nearest house miles away, women no longer had a place they could work as maids. Children dropped out of schools, and with the spread of alcoholism and domestic violence, families and bonds were broken. Thievery thrived as trust and brotherhood between people of different religions gave way to animosity. Today, these families live in constant fear of being driven out of their temporary relocation site and being rendered homeless again. Whether they have the mental ability to pick up the pieces and start all over again is a question that is dauntingly treacherous.

A situation such as this is confined not just to the Mahatma's state but is rampant throughout the country. Thousands of lives are being changed overnight by the decision to vote for development. The question here is not whether India needs development, the question we need to ask ourselves is how far is India equipped for development? Are there alternate sustainable plans made that can cause minimal damage to the people involved? Can the same treatment be assured to the educated, the uneducated, the influential, those with no connections, the rich and the poor?

India's Progress Card

Though the extent of development in India is by itself a debatable issue, it is the nature of preparedness that this essay addresses. Take the example of the case of relocation. People were shifted from houses that generations had been occupying. Before the beautification project can be implemented, it was regulated that an alternate permanent accommodation with all required facilities be arranged for those living in the lands that were to be seized. But what happened was that while bulldozers razed down households, occupants were given the alternative of either finding their own accommodation or settling in the temporary relocation site, with absolutely no facilities. Livelihoods were plucked away, education was destroyed and hearts were broken.

Another aspect of this beautification project was that it was going to destroy the informal Sunday market that formed an integral part of Ahmedabad's heritage. The Sunday market, apart from historical value was a place of immense economic worth. The market served as an optimal solution to the poor and lower middle class families who were unable to afford the expensive wares and household equipments sold in malls. It was a place where anything and everything could be found and it served as the ideal market to finish shopping for everything on one's list. The emotional value that people attached to the market was so intimate that there were those who were addicted to the market and came every Sunday, just to feel the buzz of the marketplace. Such an important place was going to be shifted out of the cityscape, with no alternate arrangements being made.

This is but an example of the nature of preparedness of India. All around us, forests are being burned down, agricultural lands are being turned into industrial townships and dams, power projects and mines are being constructed leaving thousands homeless. What is the cost of this rampant development?

Economically, it is difficult to put down a cost on every home that is being shattered by the giant foot of development, but it is quite clear from statistics that the gap between the rich and the poor is only widening, as a result of economic development. It is time that India looked at holistic development that is reflected not only through numbers but also by improvement in the quality of life.

Ice-Cream For All

This kind of gap between policy formulation and implementation can only bridged through conscious involvement of government and its target audience, its people. Short and long run strategies need to be examined to tackle effectively the problems at hand and those anticipated.

For the present, if the concept of temporary relocation can be a legally objectionable solution, people have won the case for development. Public Interest Litigations (PILs) can be an effective judicial tool for banning temporary relocation

as a viable alternative and reinstating the need for fully sustainable systems to be in place before the initiation of any development project. This brings to light the need for people-friendly judicial processes that can help address public grievances.

If young people can come together to create awareness about the power of legal tools such as the Right To Information Act (RTI) and the Public Interest Litigations, justice is on the side of the people, creating a win-win situation. Through imparting legal awareness to affected communities and to the general public, people will become aware of their rights and about how to demand for their rights when it is taken away from them. Simple ideas like street plays, house-to-house interactions and meeting with the Panchayat leaders, can go a long way in bringing together communities to fight for justice. Not just students pursuing law, but today's young generation can hold hands and begin this enlightenment movement. And what more influential source of persuasion do we need than the present social media? Extensive use of blogs, video logs, social networking sites, virtual notice-boards and mobile photo uploads are but a cake-walk to today's youth.

Suppose you happen to notice policemen driving out pavement dwellers. Take pictures, video bytes, upload on social platforms and with the help of some friends, file an RTI to find out the motive behind the action. If it was justified, maybe the physical manifestation was not. If it weren't potential lives are being saved by your social consciousness. All you needed was a mobile phone, access to the internet and a conscience. How many of us can deny that?

A Sustainable Future

Once the immediate problems are addressed, there arises a need for a long term sustainable solution that will ensure that the development process is an inclusive one. For this, committees need to be put in place that can look into the effect of implementing a development project. The number of people being dislodged, the kind of animal and plant life being affected and the impact on the environment are factors that need to be considered with an impartial mind. It is important that committees that are formed involve not only efficient government officials, policy makers and NGO workers but also the community representatives. In a developed country like New Zealand, any sort of development project can be implemented only when the personal approval of every individual who will be affected by the plan can be attained by fair means. India is on its way to development; it needs to make sure that the development is wholesome.

These committees need to ensure that appropriate measures have been installed well-in-advance that will safeguard the interests of the community such as fully equipped, functional living systems for people being relocated, building of alternative ecosystems for the plant and animal life being destroyed and the preservation of the carbon footprint of the system as a whole.

Battling With The Drawbacks

Such processes will tend to be time-consuming and exhaustive in terms of initiative and effort. Narrow perspectives, power issues, ego problems, corruption, bribery, red-tapism, inability to arrive at solutions that make all stakeholders happy are all part of the bumps on the road. If these bumps can be smoothened out with patience, justice and with equity as the goal in mind, once the wheels are set in motion, the journey is bound to be worth all the initial hiccups.

A Happy Family

Arundhati Roy in her essay, 'The Greater Common Good', recollects the tender concern with which the Supreme Court judges in Delhi (before vacating the legal stay on construction of the Sardar Sarovar Dam) had enquired whether tribal children in the resettlement colonies would have children's parks to play in. The lawyers representing the Government had hastened to assure them that indeed they would, and, that there were seesaws and slides and swings in every park. While visiting the very site and looking at the water from the dam rushing past that had engulfed the lands, the homes and the dreams, she laughs out aloud, at the absurdity of it all, at how Jawaharlal Nehru had told villagers who were going to be displaced by the Hirakud Dam in 1948, *"If you are to suffer, you should suffer in the interest of the country."*

India is in dire need of development and investment in infrastructure. What is needed to be recognized as crucial is that this development is intended to not just boast of growing GDP rates but to observe a marked difference in the quality of life every Indian citizen. Development needs to be inclusive and equitable. The legal path is to bring about the active support of the population, especially the educated youth, through Public Interest Litigations. By filing PILs to look into the current development processes and bring about justice would help resolve short run issues that present projects entail. The long run bureaucratic solution is to ensure this is by involving all stakeholders in the process - bringing together a consensus, reached through fair means, in a team that consists of policy makers, government authorities and the community representatives.

Imagine the same two children, well-fed, fully clothed, running out of their clean, well-maintained houses towards a fruit seller, through the trees and flowers, in their summer holidays, with change tightly clamped in their tiny hands, earned by their fathers' honest living, in the industry safely away from the place called home.

Imagine change.

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