

24th April ' 2009

The Indian Primary & Secondary Education Mega Project

Executive Summary

Central to the thinking behind this project is the belief that a significant reason for the steep decline in the quality of human resources in India has been the neglect of the teaching profession and teachers as a class over the last several decades.

This project takes note of the fact that India reached the height of its glory when the teacher was at the head of our society and therefore seeks to bring back this long lost Indian tradition through an innovative mechanism on a truly massive scale. The project is focused on providing a sound basic education as it is more important to have sound education at the primary and secondary levels for a majority of our people than to spend billions of dollars on higher education and have most of those people going abroad.

In India today, a crane operator with 5 years of experience makes more money than an MA in Economics or a MSC in Maths or a teacher with a proper BEd degree and with 10 years of teaching experience with primary school children. This has warped the economic choices that a fresh graduate makes and has resulted in the least qualified individuals handling the most important of all the jobs in this country (The teaching of our children and tomorrows citizens).

The whole project therefore is designed around the primary & secondary school teacher (Project **is not** centered on the student) with a view to creating a simple yet elegant lifestyle around the teaching profession, thereby correcting a macro imbalance in our society so as to get the best minds back into teaching in a game changing manner.

The project will also , in terms of its output , far exceed , any previous plan of the Govt. Of India , in terms of its effectiveness as regards the number of children taught how to read and write, and it will, in fact, go far beyond making them " just literate " at a cost (To Govt Of India) far lower than any previous or currently planned Government scheme. . The following pages describe the major aspects of the project. There are however literally hundreds of ideas and calculations that are contained in the accompanying Excel workbook which is at the heart of this project proposal and those interested may please refer to the excel file for details.

The project , as designed, and in its current form , delivers on all major recommendations made by the National Knowledge Commission in its **3rd February ' 2008** communication / report to the Govt. Of India in the matter of School Education. It is therefore requested that the Government Of India give it serious consideration

Project Scale :

The project seeks to build a total of **30,000 New schools** (with 600 students per school) under the Public Private Partnership (PPP) format during the period **2010 - 2020**. Each school under the programme will share teaching resources (Teachers , Teaching aids etc) with **5 - 7** other village schools in its surrounding area so that a total of **240,000** schools will be covered under the programme . We

believe the given the latent demand and supply side problems , the market in India will be able to absorb this large project that is planned in 6 phases as below :

Phase	Number of Schools	Commissioning Schedule
Phase I	-	Q1- Q4 2010 (Project Enabling Infrastructure)
Phase II	-	Q1- Q4 2011 (Project Enabling Infrastructure)
Phase III	3000 Schools	2012 – 2014
Phase IV	10000 Schools	2015 – 2016
Phase V	15000 Schools	2017 – 2019
Phase VI	2000 Schools	Q1- Q4 2020
30,000 New Schools to be commissioned by 2020		

Each Of Phases I & II

100 Teacher Training Institutes to train 300 teachers each per year + 30 Centers of Vernacular Architecture to train 300 Master Masons Each every year

Phase II will be a repeat of phase I

Note : It is not possible to execute this project faster as India currently does not have enough trained teachers who possess the necessary capability / sensitivity to train young minds.

Hitherto, Government plans including the flagship programme " **The Sarva Shiksha Abhiyan** " have focused on the student instead of focusing on " The Teacher " who has traditionally been the " **Pull factor** " in the Indian system for thousands of years, instead planners have relied on schemes such as " **The Mid-Day Meal Scheme** " to draw children to schools in the hope that it would somehow increase literacy and learning substantially.

Innovative Financing

While this project will need very significant Institutional support from the Central & State Governments, It **will not need any long term budgetary support** from the Government and **no money will be diverted from existing schemes or those planned under the estimates for the XIth Plan period**. For startup, the project will however require an Initial corpus (which will be repaid within 3 years). Since the project has an innovative and **completely independent** financing mechanism (Attached Excel worksheet : Education Megaproject_Legal and Financial Structure) it will therefore not hinder in any way any other previously running or currently planned scheme of Government of India. **This will instead be an add on umbrella scheme** that will greatly strengthen current government initiatives and will **create an incentive for the whole system to achieve higher levels of efficiency** than what is being hoped for at the present time.

The main features of the project are as follows :

- a). Since the schools are conceptualized around the Teacher the design will allow for the creation of **very elegant** yet **low cost** campuses built in the vernacular style. The project (**85 %** will be day schools and **15 %** will be residential schools) will provide for excellent teachers housing **in both formats** and money has specifically made available for this in the project financial

structure. Teachers will also get decent salaries (Rs 20,000 / month Tax free as a starting salary). There will also be free Medical treatment and a house provided to the teacher on retirement. While the project will not match corporate salaries, It will exceed corporate standards in providing a superior quality of life for the teacher and his family. **The project also requires that the decade 2010 - 2020 be declared as the decade of the Teacher in India.**

- b). Under the plan, school projects will be offered out on bids to the general public. So to ensure that a proper value system is maintained and to keep out unscrupulous promoters, each bidder for a school project will need to have any two of the following categories of people on the governing board :
- A Vice Chancellor
 - 2 Senior retired teachers / Educationists with over 20 years of teaching experience

 - 2 Retired senior defence officers (Army / Navy / Airforce)

The above categories of people are expected to bring the necessary level of integrity to the schools and this needs to be made a mandatory requirement of the project under the BOT concession document. In addition certain social criteria / social goals will also be biddable items under the project criteria and organizations such as the TATA Institute of Social Sciences could be roped in to develop transparent social criteria as biddable items and therefore deliverables from the school concessionaire.

- c). In India we need more Religious awareness (Not less) and in addition to the usual subjects , there will be a great emphasis on an inclusive Indian culture The inclusive nature of Indian culture will be stressed. The students will also be given an exposure to Indian history and culture by making Amar Chitra Kathas a part of the syllabus for every child in India.
- d). As stated earlier, each of the 30,000 schools constructed under the programme will be required under the terms of the BOT concession document to share their teaching resources with 5 - 7 village schools in their area. The concept here is borrowed from the experience of our former president Dr. APJ Abdul Kalam. He did not have the best living facilities but he did have a great teacher who inspired him.

If the management board of a school decides not to share its teaching resources with 5 - 7 other schools (after winning the concession) , the concession will be withdrawn and the school will immediately be transferred to another bidder or to the State Government / Central Government.

- e). The project will have a massive Adult education programme. In this sense it will be like a Marshall Plan for Education in India. The country currently has the youngest population (in % terms) globally , but this could turn into a demographic liability if these people are not educated quickly. Given past experience in India, the project is assuming that there will be vast slippage in this area and therefore extensive use will be made of IT , Satellite communication and Fiber optic networks to reach a total of **240,000** schools covered under the programme by launching **12** New and enhanced ISRO EDUSAT Satellites by 2015. The schools will also serve as vocational training centres for imparting skills based training to over 200 Million illiterate people. The attached Excel file goes into the details of

the Enhanced EDUSAT Programme in collaboration with ISRO.

Sustainable Development & The Environment

The proposed project is also conceptually very different in its construction and the materials that will be used to build the schools. To dramatically reduce construction costs in a project of this size, traditional Indian architecture which uses traditional and local building materials such as Laterite, clay and brick will be deployed instead of cement concrete on a massive scale to achieve a superior finish (Pictures attached at end of concept document) and long lasting construction with a life of approximately 100 – 150 years without significant maintenance.

Besides its use of environmentally benign construction materials, the project will also result in the planting of **150** million trees over the next 10 years, thereby making it the worlds largest environmental project.

Governance : Project & Operations Phase

There are huge cashflows involved in both the project execution and operations phases of the Indian Primary & Secondary Education Megaproject. The execution phase will involve the raising and expenditure of approximately US \$ **88** Billion or Rs 440,000 crores between 2010 and 2020 (Excluding the US \$ **4 – 5** Billion EDUSAT Programme) and the operations phase will involve project revenues and rent allocations (which will help approx. **126** million children to receive quality education free of cost) of over Rs 100,000 crores each year after 2020.

This scale of cashflows needs to be monitored in a transparent manner and the entire project needs to be open to public audit. It is therefore an **explicit requirement** of the project that it be executed in a corporate setup, outside the concerned ministry, under government of India. In fact, it is better not to execute this project, than to do it within a ministry or the existing school system where in-efficiencies and leakage of funds and existing system politics will undermine the very basis of the project and lead to huge cost and time over-runs. It needs to be clarified here that the project however will spend thousands of crores of rupees on assisting existing schools, without getting involved with actually running them and getting embroiled in their internal politics.

The project needs therefore to be executed and operated in a corporate setup, under a **Special Project Vehicle (SPV) “ The Indian Social Infrastructure Corporation “ set up under an Act of Parliament** in the same manner as organizations such as IOC, ONGC, NHAI, IIFC and UTI were set up. The chief secretary's of all states, The Chairman of the National Knowledge Commission, The Secretary, Ministry of HRD, Chairman NCERT, the Deputy Chairman of the Planning Commission and the Minister of HRD will be members of the board, with the Prime Minister as Chairman of the board. The responsibility for audit for this organization will vest with the Auditor General of India. A detailed flowchart of project financial structure, scheme for raising resources and associated Cashflows is attached.

Delivered Cost

As conceived, all schools will be delivered, fully furnished, with furniture but not including air conditioning at a maximum cost of **Rs 800 – Rs 850 / Sq ft**. The costs will be

much lesser as scale economies are reached and the necessary artisans skilled in Traditional / Vernacular Architecture are trained.

BOT Project

Public – Private partnerships in education are crucial to the objective of de-centralization and accountability within the Indian School System. The 30,000 schools planned will therefore all be under the BOT regime.

All schools built under the plan will have an initial concession period of **15** years after which the performance of their managements will be evaluated and the BOT concession will either naturally terminate or will be allowed to continue under a BOO framework. Individuals and institutions wishing to set up schools will be required to bid for the project for which there will be certain biddable criteria. The winning party will receive land free of all encumbrances as well as all clearances & permits from state and federal government authorities including educational boards along with the project specifications , immediately after the winning bids are notified. This procedure will do away with the current in-efficient and time consuming process of multiple clearances and associated lack of transparency.

The BOT scheme will be in accordance with a 1 page rulebook which seeks to ensure that genuine parties with an interest in education get an opportunity to run schools while at the same time , crucially to prevent , un-scrupulous people from using the scheme as a means of grabbing land. The BOT rules in this regard will be quite strict and very clear on land use (specified in the attached Excel Workbook) and violation of any of the rules will result in termination of the concession.

Project Philosophy

A project of this size and scale will be a dead and soul-less agglomeration of buildings and computer networks without a sound philosophy which is timeless and which seeks to bind people of diverse faiths and lead them towards the realization of their potential as human beings . The following words of Vivekananda are therefore noteworthy “ **Let the watchword be acceptance and not exclusion.** Not only toleration , for so called toleration is blasphemy. Toleration means that I think you are wrong and I am just allowing you to live. Is it not blasphemy to think that you and I are allowing others to live ? **I accept all religions that were in the past and worship them all. I worship God with everyone of them, in whatever form they worship him**”.

Vivekanand Continues ...

“ I shall go to the mosque of the Mohammedan ; I shall enter the Christian’s church and kneel before the crucifix. I shall enter the Buddhist temple where I shall take refuge in Buddha and in his law. I shall go into the forest and sit down in meditation with the Hindu, who is trying to see the light which enlightens the heart of everyone.

Not only shall I do all these things but I shall keep my heart open for all that may come in the future . **Is Gods book finished ?** Or is it still a continuous revelation going on. It is a marvellous book – these spiritual revelations of the world . The Bible , The Vedas , The Koran and all other sacred books are but so many pages and an infinite number of pages remain to be unfolded ”.

Vivekanand's " Inclusive Philosophy for Education " has been adopted as the design basis for this project for its **extremely advanced and timeless** thoughts . Project design basis is also attached for your reference.

Project GDP Impact

As stated earlier, this project , will involve an expenditure of approximately US \$ **88 + 5** Billion over a 10 year period extending from 2010 to 2020.

This number is however small compared to the huge money multiplier effect of US \$ **500** Billion (**net addition**) that the project will have on the Indian Economy by the year 2020. This estimate does not include the Economic and National dividend in terms of increased productivity and the excellent value system that it will deliver to the masses of India by 2030 , the year in which this project will being to make it's very significant presence felt in every home in the country.

The Government of India , The National Knowledge Commission and the Planning Commission as well as the various state governments are therefore urged to give this project serious consideration and to say "**yes**" to committing the initial sums that will be required for the setting up of the initial and very necessary teachers training facilities and artisan training institutes that are " conditions precedent " and therefore required to bootstrap this project and to meet a very aggressive project schedule that is planned.

India is entering a phase of Mega Projects. We have the engineering and project management skills necessary to commission projects of large size. Let us not set limits on our imagination as to what can be achieved in physical project terms.

Thank you for your time



Project Visualizer
The Nataraja Foundation
www.nataraja.org.in

" Determine that a thing can and shall be done, and then, we will ... find a way " – Abraham Lincoln

Project Proposes to build 30,000 schools , all over India between the years 2010 – 2020 based on Traditional Indian / Vernacular / Sustainable Architecture ...

Examples of Low Cost , yet very elegant designs that are possible with Traditional Indian Architecture ...



Kindergarten

Auroville Architects



Private Residence

Bangalore

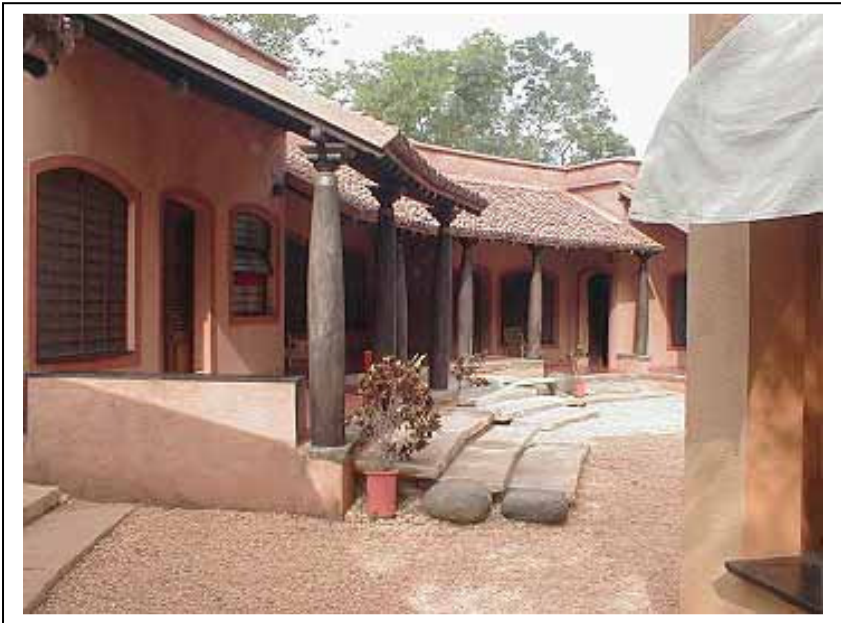
Actual Cost Rs 750 / Sq Ft

Sample Of A Teachers House that the Project will deliver

Architect : RL Kumar



Private Residence
Auroville Architects



Atithi Niwas, Auroville
Architect : Dharmesh Jadeja



Deens Academy
Whitefield Bangalore
Cost : Rs 690 / Sq ft
Architect : RL Kumar



Centre for Development Studies
(Trivandrum)
Laurie Baker Construction
Approx Cost : 700 / Sq Ft



Deens Academy
Whitefield Bangalore
Cost Rs 690 / Sq Ft



Peepal Tree School
Bellary , Karnataka
Cost : Rs 650 / Sq Ft
Architect : RL Kumar