TERM SHEET

Operations Phase Financing

The Vivekananda Education Megaproject

(Secondary Schools + Skill Development)

Hybrid Scheme

The Nataraja Foundation
Mumbai

Compendium of Financing Sources :

Operation of 30,000 New " Skills Development Centers + Secondary Schools " under PPP across 29 States & 7 Union Territories

Financing note submitted to
Ministry of Skills Development & Ministry of HRD, Govt. of India

12th Nov ' 2018

Projects by Architect : Shri. RL Kumar
Pictures Courtesy : Centre of Vernacular Architecture, Bangalore www.vernarch.com

Executive Summary --- > Operations Phase Financing

Financial Options For Raising Rs **2,21,814** Crores each Year from **Seven** different sources

OPERATIONS PHASE
Beyond 2021

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Rs / US $ Exchange Rate (12th Nov ' 2018) : 72.9078

India 10 year Bond Rate (12th Nov ' 2018) : 7.8 %

A. Non Tax Based Financing

1. **Content Outsourcing / Online Tuitions Business : Rs 11,681 Crores / Year**
2. **Fees (Fractional Vouchers / Foreign students) : Rs 29,220 Crores / Year**
3. **Coordinated CSR Funding (All India) : Rs 10,000 Crores / Year**
4. **Yearly Rent From Re-Developed PSU Land : Rs 72,908 Crores / Year**

Rs 1.23 Lakh Crores / Year

B. Innovative New Fee / Tax

5. **Quantized TOBIN Tax on Forex Trns : Rs 41,098 Crores / Year**
6. **New Graduate Tax on Employers : Rs 39,407 Crores/ Year**

Rs 80,505 Crores / Year

C. Re – Allocation of Existing Flows

7. **Re-Allocation of Existing Flows**

A. **Education Cess @ 3 %**
Rs 6500 Crores / Year

B. **20 % of NREGA Funds**
Rs 11,000 Crores / Year

Rs 17,500 Crores / Year

Government of India
- Ministry of HRD
- Ministry of Finance
- Ministry of Skills Development

Parliament

Consolidated Fund of India

Rs 57,725 Crores Balancing Amount In 5th year

Yearly deficit of Rs 88,376 Crores will be Financed from the General Budget within a US $ 4.5 Trillion Economy that India will be by 2025.

Education Megaproject Escrow A / C

Education Megaproject Fund

Rs 2,79,539 Crores Req in 5th Year

Education Megaproject Fund Act

ISIC Act

Indian Social Infrastructure Corporation (ISIC)

Operate 30,000 Secondary Schools and Share Teachers with another 6,21,085 Existing Govt. Schools

National Highway Authority of India (NHAI) LOOKALIKE STRUCTURE

Education Megaproject uses familiar NHAI Structure in plug & play mode to raise Rs 2.218 Lakh crores from 7 innovative sources each year. Balancing amount required is small within a US $ 4.5 Trillion Economy that India will be in 2025

The Vivekananda Education Megaproject

TERM SHEET

Operations Phase Financing

Compendium of Financing Sources

for

Operation of 30,000 New Skill Development Centers & Secondary Schools + 6,21,805 Assisted SSA Schools across 29 States & 7 Union Territories

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Note :

The Yearly Operations cost of the Vivekanand Education Megaproject including its 30,000 New Secondary Schools & Skill Development Centers and its extensive Teacher Sharing Programme (for sharing quality teachers with 6,21,805 Additional Existing SSA Schools) is of the order of Rs **2,79,539** Crores in the fifth year and Rs **3,27,556** Crores in year 10. This is expected to increase over a period of time due to inflation. We have identified alternative financing options to raise a large part of this money by tapping hitherto un-utilized finance pools. Since India is on track to be a US $ **4.5** Trillion economy by 2025 and a US $ **7.5** Trillion economy by 2032, we believe that there should be no problem with financing this. Central Planners need this “ Economic Expansion ” reference frame clearly in mind.

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To download all project documents & detailed calculations please visit : http://www.nataraja.org.in/Vivekanand_Education_Megaproject.htm

Sl. No.	Source Description	Amount Available Each Year Starting 2028 (Crores of Rupees)	Remarks / Critical Assumptions
I	**Operations Phase I Financing … (2021 - 2028)**		
1.	**a. Teacher Exchange Programmes with foreign countries** **b. Content Creation Business** **c. Upskilling of Indian workforce** **d. Online Tuition Services for schools / Adult education evening centers** Some of this Revenue becomes available as Schools are commissioned in steps starting in 2021. The number here however reflects the inflow after all the teachers of the 30,000 New Schools are trained by 2028. **Assumptions :** It is assumed that the hourly rate for teachers / instructors deployed on International Assignments and International Content generation is a conservative US $ **15** / Hour. For the Indian market (Content creation, Up-skilling the workforce, Online Tuition services) the rate will be Rs **500** / hour. =((2.2*10^6)*0.3*2*300*0.4*15/10^9)*0.4 **+** ((2.2*10^6)*0.3*2*300*0.6*6.8579/10^9)*0.4 = Rs **11,681** crores / year is Opex financing contribution	**11,681**	The Vivekanand Education Megaproject will be employing approximately **2.2** Million Graduate Teachers and Skilled Craftsmen across India. As India is short of graduate teachers, the megaproject will resort to unconventional thinking and recruit graduates from other professions (eg. Office Secretaries from different organizations and Skilled Craftsmen) and train them to be teachers / instructors and Education content creators. These individuals will then be employed on 5 year rolling contracts. The terms of the contracts will be flexible enough to permit teachers / instructors to organize themselves into teams / guilds which could then (1) Do online training & Tuition / Upskilling and Adult education in India and (2) produce education content for the world market The revenue earned through this venture will be shared by teachers / skilled craftsmen … and the Vivekanand Education Megaproject in the ratio 60:40 with the larger sum going to the teachers / skills instructors. The Megaproject's Graduate Teachers will also participate in Teacher Exchange Programmes with schools in foreign countries. For the purposes of this calculation the total additional teachers recruited by the megaproject is assumed as 2.2 Million. It is further assumed that just **30 %** of these individuals will participate in this venture for just **2** hours each day . It is further assumed that a teacher will work on these assignments even during school vacations in India and for the sake of computation, a teacher will be available for 300 days each year. Of the 300 days teachers and Instructors are available for 2 hours / day, 60 % of their time will be on domestic assignments and 40 % on International assignments. Each of these teachers, on average will therefore earn an extra income of Rs 4,42,468 each year. Of this **60** % will be retained by the teacher and 4**0** % (Rs 1,76,987 / -) will go to the Megaproject authority to finance OPEX.

Financing Sources (Operations Phase)

Rs / US $ Exchange Rate (12th Nov ' 2018) : 72.9078

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Sl. No.	Source Description	Amount Available Each Year (Crores of Rupees)	Remarks / Critical Assumptions
2.	**Fees From Foreign Students / Fractional Voucher Students** **<u>Day Schools</u> :** **Fee per Middle Class student = 52,743** **Fee per foreign student = 2,39,735** **Total** **= 159823*25500*600*0.24*0.33 = 19366.71** **= 159823*25500*600*0.01*1.5 = 3667.94** **<u>Fully Residential Schools</u> :** **Fee per Middle Class student = 80,253** **Fee per foreign student = 3,64,785** **Total** **= 243190*4500*600*0.24*0.33 = 5200.37** **= 243190*4500*600*0.01*1.5 = 984.92**	**29,220** As Per Education Megaproject <u>Financial Model</u> for both types of schools.	The Vivekanand Education Megaproject will build 25,500 Skill Development Hubs / Secondary schools and 4500 fully residential schools of the Rishi Valley class (Infrastructure basis). Each day school / residential school, will have a student strength of 600 students and have a teacher strength of approx. 75 teachers / instructors per school (Significantly larger than the number required for a teacher - student ratio of 1:20 . This will enable the extra teachers / skilled instructors to be shared with 22 other schools within a 50 Km radius. Both day schools and residential schools will provide accommodation for all teachers / Skilled craftsmen. It is being assumed that **75 %** of the students in each school will be students from poor families / rural backgrounds, **24 %** will be students from middle class families on a 66 % Fractional voucher and just **1 %** of the students will be foreign students / SAARC country students paying <u>150 % the annual fees</u> for each type of school. This revenue from 1% foreign students paying 150 % fees and 24 % middle class students paying 33 % % of the fees becomes available as schools are commissioned in phases starting in 2021. <u>Education for 75 % students from poor rural households will be absolutely free</u>. The number here reflects the inflow after all the 30,000 New Skill development centers / Secondary Schools are commissioned in 2028. Voucher values will be different for day schools & fully residential schools. However in each case One Voucher will cover the cost of <u>not just</u> 1 student in the School , but also the cost of educating 21 other students studying in schools covered by the teacher sharing programme within a 50 Km radius. Day School Voucher value ***** : Rs. 1,59,823 / year in year 1 Fully Residential School Voucher value ***** : Rs. 2,43,190 / year in year 1

Financing Sources (Operations Phase)

Rs / US $ Exchange Rate (12th Nov ' 2018) : 72.9078

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Sl. No.	Source Description	Amount Available Each Year (Crores of Rupees)	Remarks / Critical Assumptions
3.	**Coordinated CSR Funding (All India) after 2028** The Vivekanand Education Megaproject with its diversified areas (Education, Women and Child Development, Rural Development , Poverty Alleviation in Urban Areas, Water and Sanitation / Swachh Bharat and even Environment & Forests) presents a substantially wide range of CSR options. This provides Corporates with a wide range of project areas within a single umbrella (Education Megaproject).	**10,000**	Last year (2017) the top 100 companies in India spent just 6800 Crores put together on CSR. However, according to a recent IIM Ahmedabad study, total CSR Funding in India today, has the potential to exceed Rs **25,000** Crores each year. This money is expected to accrue under Sec 135 of the Companies Act 2013, from a total of **16,352** companies identified as coming under the ambit of Sec 135 by the Indian Institute of Corporate Affairs. By 2028, due to the GST (Honesty factor) we expect CSR collections to grow by 50 % in absolute terms within a US $ **4.5** Trillion economy that India will be by then. Assuming that 60 % of this money will be spent by companies through their own foundations / trusts, the balance 40 % or Rs **10,000** Crores could be targeted and channeled by the Govt. into specific projects ... and monitored. By then the CSR securitization period would have ended (please refer Capex plan) and the excess CSR collection can be directly deployed to finance school Opex.
4.	**Yearly Rent from Re-Developed PSU Land**	**72,908**	Approx. 27,000 Acres of Surplus PSU land (From a total of 30,000 Acres) in Urban centers across India could be organized into an Asset Bank held in Trust by a Special Purpose Vehicle " The Indian Social Infrastructure Corporation (**ISIC**) ". The ISIC which will be an Act of Parliament company, will then be the Landlord which will give land out on 30 year Long Lease to various private sector organizations. The ISIC will issue a Global Tender inviting Investors and Developers from India and Internationally to set up financial centers in India in partnership with the Govt. Developers will need to come up with ideas wherein the ISIC will get a yearly income of US $ 10 Billion from the Leasing of the 27,000 Acres in Indian Metros and other B category towns. This will help provide funds for running Skill Development Centers / Secondary schools in rural areas.

Financing Sources (Operations Phase)

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Rs / US $ Exchange Rate (12th Nov ' 2018) : 72.9078

Sl. No.	Source Description	Amount Available Each Year (Crores of Rupees)	Remarks / Critical Assumptions

PART II of Opex Financing Plan … Innovative New Tax Based Sources (2028 and Beyond)

This section proposes schemes to provide financing for the Operations phase of the Vivekanand Education Megaproject through a system of Innovative New Tax based sources which are very low in terms of percentage tax that is to be levied.

Sl. No.	Source Description	Amount Available Each Year (Crores of Rupees)	Remarks / Critical Assumptions
5.	**Levy of 0.02 % Quantized Tobin Tax on Forex Transactions after 2028**	**41,098**	The average foreign exchange daily trading volume in India is likely to be US $ **108** Billion on a conservative basis by **2028**. For 261 Trading days in a year, the total trading will be of the order of **28.188** Trillion per year. Former RBI Governor Dr. D Subbarao had in Dec ' 2009 hinted at the need for possible policy measures , including a Tobin Tax to discourage round tripping in the Indian Rupee which could lead to rupee volatility resulting in Indian exporters being rendered un-competitive in the International markets. This would be especially true after India moves to full convertibility on the capital account. It is therefore proposed to have a **0.02 %** Tobin Tax (0.0002) on Forex transactions which will raise US $ **5.637** Billion each year after 2028. This is a very low tax which besides stabilizing the Indian rupee, will simultaneously help raise financing for Social welfare schemes in Education & Healthcare, thereby yielding long term benefits for the Indian Economy. Given that India is likely to be amongst the fastest growing markets in the world over the next decade, the Design lab (Nataraja Foundation) does not expect business to move away from India due to the imposition of the Tobin tax. Since 90 % of the worlds forex transactions are cleared in just a few financial centers globally, it will not be difficult to impose this tax. Finally, in our calculations we have assumed that there are 261 trading days each year. The imposition of this tax has been considered at the **G20** Meeting in 2009.

Country	GDP (2017) US $ Trillion	Daily Foreign Exchange (FX) Trading Volume US $ Billion
1. Germany	3.678	108
2. France	2.582	NA

Financing Sources (Operations Phase)

Rs / US $ Exchange Rate (12th Nov ' 2018) : 72.9078

Sl. No.	Source Description	Amount Available Each Year (Crores of Rupees)	Remarks / Critical Assumptions
6.	**New Innovative Graduate Tax Levy** Suggestion by NV Varghese **(Reforming Indian Education – 1991)**	**39,407**	New innovative tax levy in accordance with a suggestion of NV Varghese. (Reforming Indian Education - 1991) who proposed the levy of a Graduate Tax on Private Commercial organizations who today employ India's scarce resource of **68** Million graduates. By 2028, we expect India's graduate population to increase by 50 % to **102** million graduates. Govt. of India has, over the last 40 - 50 years spent a lot of money on creating these graduates and the levy will (after 2028) raise Rs. 39,407 crores each year for the government to plough back into Education. The Justification for this Tax Levy comes from the fact that commercial organizations employing India's limited supply of graduates are taking full advantage of the increased productivity of these people without ploughing anything back into the system. For example it costs Govt. of India Rs **30** Lakhs to produce one IIT Graduate and another Rs **50** lakhs to produce one IIM Graduate. The Graduate Tax could potentially collect Approx. Rs 25,022 crores from the Organized Sector and another Rs 14,385 crores from the unorganized sector. It is being assumed here that the Rs 38,250 Crores to be collected each year after 2028, represents just half of the true potential of this levy as a funding source. If professionals such as doctors with private practices are included, the collections could be larger. A similar tax needs to be levied on people immigrating abroad after completing their education at the expense of the Indian Taxpayer. The tax rate on such individuals needs to be higher and this needs to be levied at the time they seek clearances to immigrate abroad.

Justification for this measure :

Currently a Professional Tax is collected from the employee. This completely leaves the Employer out of the tax net whereas it is the Employer who is making a huge gain on an asset whose preparation has been financed by the Government. Employers need to be taxed because they are getting considerable productivity from these ready made assets without spending a single paisa on their education.

Assumptions :

We are assuming the 3 % of CTC levy will be applied within a system wherein each employee earns just Rs **2.5** Lakhs each year on average from the Employer who is bearing this Tax.

We believe that Employers will still pay this tax and not pass it on to their employees as there is an acute shortage of qualified people in India. We believe that organizations will not be able to pass this tax on to employees as they will be competing with each other in a rapidly growing economy where skilled manpower is a scarce resource.

If independent processionals such as doctors and other graduate professionals can be taxed, this collection can go up considerably. It needs to be noted here that 100 % of this Graduate Tax Levy will go towards the construction of New Secondary Schools as there is a massive shortage of over **6.21** Lakh Secondary Schools in the country.

Calculation = (102 Million X 0.03 X 2,50,000 (Average salary) / 10^7) * 0.5 (Only 50 % will be paid by employers)

Financing Sources (Operations Phase)

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Sl. No.	Source Description	Amount Available Each Year (Crores of Rupees)	Remarks / Critical Assumptions
	PART III Of Financing Plan … Re-Allocation of Existing Budgetary Provisions (2028 and beyond)		
	This section proposes the re-allocation of certain already existing tax proceeds to more effectively utilize them and improve productivity.		
7. A.	**Utilizing existing 3 % Education Cess after moving it to a special Secondary Education Escrow Account instead of to the consolidated fund of India as is presently the case**	**6500**	The current collection of Education Cess is of the order of Approx. Rs 6500 (six thousand five hundred) Crores each year. While not considered as a potential financing source within the Vivekananda Education Megaprojects financing structure, Govt. could consider collecting this Education cess within a specially created Secondary Education Escrow Account and deploy it exclusively to finance the operations of the Education Megaproject or the Teacher Sharing Programme within the Megaproject beyond 2028, once the system is built.
B.	**Utilizing 20 % of MGNREGA funds … for operating the 30,000 New Secondary Schools and their network of 6,21,805 assisted Secondary Schools in Rural Areas.**	**11,000**	Currently MGNREGA has a yearly budget of Rs 55,000 Crores in 2018. Under previous governments, this money was not being used to create Long term productive assets in rural areas. While not considered as a potential financing source within the Vivekananda Education Megaprojects financing structure, It is proposed to divert 20 % of MGNREGA funds to operate Long Term Economic Assets (i.e. Skill development centers / Secondary schools) in rural areas. The highest return on capital comes from Education and Healthcare infrastructure creation and operation. Since there is a massive shortage of Secondary Schools in rural areas, it is proposed to use this money to maximize rural impact through a focus on secondary education and skills development.
	Grand Total of Operations Financing Options **After Excluding existing budgetary item No. 7.**	**2,21,814** **2,04,314**	Rs 2,04,314 Crores (Two Lakh, Four Thousand, Three Hundred and Fourteen Crores) at a minimum can be made available each year for operating the newly created network of 30,000 New Skill Development Centers & Secondary Schools and 6,21,085 assisted schools across 29 States and 7 Union Territories.

About the Designer

The Nataraja Foundation
Mumbai

Ashish Puntambekar is a trustee of the Nataraja Foundation and heads its Design Lab. He has over 25 years of experience working with some of the finest talent globally in the Energy and Infrastructure sectors and specifically in the area of large Infrastructure project design and design thinking where he is a specialist.

He has been Lead Designer for the Defence Industrial Corridor (DIC) project which has recently received an investment commitment of Rs 40,000 Crores from the Govt of India in the Feb, 2018 union budget. The Prime Minister has personally launched this massive Defence equipment manufacturing project and two large DICs will now to be built at Bundelkhand and along the Chennai – Bangalore route in project mode. Likely commissioning date of both DIC's is Jan ' 2027.

Besides the Defence project, he has recently been the convener of an International Advisory Board (IAB) with Harvard Economists, Former G – 7 Finance Ministers, Foreign Ambassadors and Defence Analysts as members. His expertise in the Geopolitics of Petroleum, his deep understanding of Middle East history and politics and his knowledge of technology shifts in the Energy Industry have earned him a name in the energy analyst community internationally. He is also an expert invitee at the Asian Development Bank (ADB) where his work on Urban Equity Withdrawal based financing has been presented. He has also been an invitee speaker on TEDx to talk about ideas that can triple the size of the Indian economy by 2030-32. Apart from this he has written articles on Geopolitics, Energy Security & Military - Industrial strategy for the Indian Defence Review magazine.

Ashish has worked in a number of diverse roles. He started his career as a project engineer working in a large petrochemicals complex and then moved on to various increasingly senior engineering, business and senior management positions on assignments involving Power plants , Ports, LNG Terminals , Oil Refineries and Pipelines. He has also worked as an Energy Derivatives Trader for a period of 5 years where he has traded crude oil flat price and petroleum product derivatives on all major commodity exchanges and OTC Markets / Investment banks around the world.

Over the years, he has designed several multi billion dollar projects which are under active consideration by the Indian Government :

1. The Defence Industrial Corridor Project
2. The Vivekanand Secondary Education & Skills Development Megaproject
3. The Indian East Coast Energy Corridor Project
4. The Mumbai Megaproject – Eastern Waterfront and Artificial Islands
5. The Indian Healthcare Megaproject (Under development)
6. The Ganges River Basin Re-Juvenation Megaproject (Under development)

Strategic Objective : Ashish is the initiator and founder of the Construct India Mission which has received official sponsorship from the Ministry of Commerce, Govt. of India. Through his work and ideas the author seeks to make India the worlds largest construction market. The focus therefore is not just on robust project design, but also on financial innovation which is critical to bring these large projects to life … and in the process create approx. 65 Million New Jobs in India by 2027.

Of all the projects he has written, the Vivekanand Secondary education and skill development project is his flagship and favourite project. This is the project that can transform not just India, but the whole of South Asia through its broad and expansively tolerant philosophy which comes from Swami Vivekanand.

Ashish has a bachelors degree in Mechanical Engineering and a Masters degree in International Business.