



Directorate General of Medical Education and Training, Uttar Pradesh

Detailed PPP Framework for Safai Paramedical College

Submitted by: CRISIL Risk & Infrastructure Solutions and Hosmac India Pvt. Limited

February 2011

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1. ABBREVIATIONS

ACRONYM	DEFINITION
BPM	Bid Process Management
COP	Cost of Project
CRIS	CRISIL Risk and Infrastructure Solutions Limited
DMET	Department of Medical Education & Training
GOUP	Government of Uttar Pradesh
Hosmac	Hosmac India Pvt. Ltd. - A Healthcare Subject Matter Consultant
IRR	Internal Rate of Return
PPP	Public Private Partnership
Project	Safai Paramedical College
Projects	Medical colleges at Azamgarh and Banda and Paramedical Colleges at Safai
RIMS	Rural Insitute of Medical Sciences
RSBY	Rashtriya Swasthya Bima Yojana
UP	Uttar Pradesh
UPRNNL	Uttar Pradesh Rashtriya Nirman Nigam Limited
UPSMFC	Uttar Pradesh State Medical Faculty Council

2. BACKGROUND

The Government of Uttar Pradesh (GOUP) has undertaken the establishment of allopathic medical colleges at Azamgarh and Banda and Paramedical College at Safai (the Projects). The construction and other development activities for these Medical Colleges and Para Medical Colleges are in full swing. At Azamgarh and Safai construction of buildings is in nearly complete. At Banda the construction activity is approximately complete to the extent of 50%.

The Government of Uttar Pradesh (GOUP) intends to run these medical colleges / Paramedical Colleges on Public Private Partnership (PPP) model. GOUP has envisioned the following role for the private sector in the project:

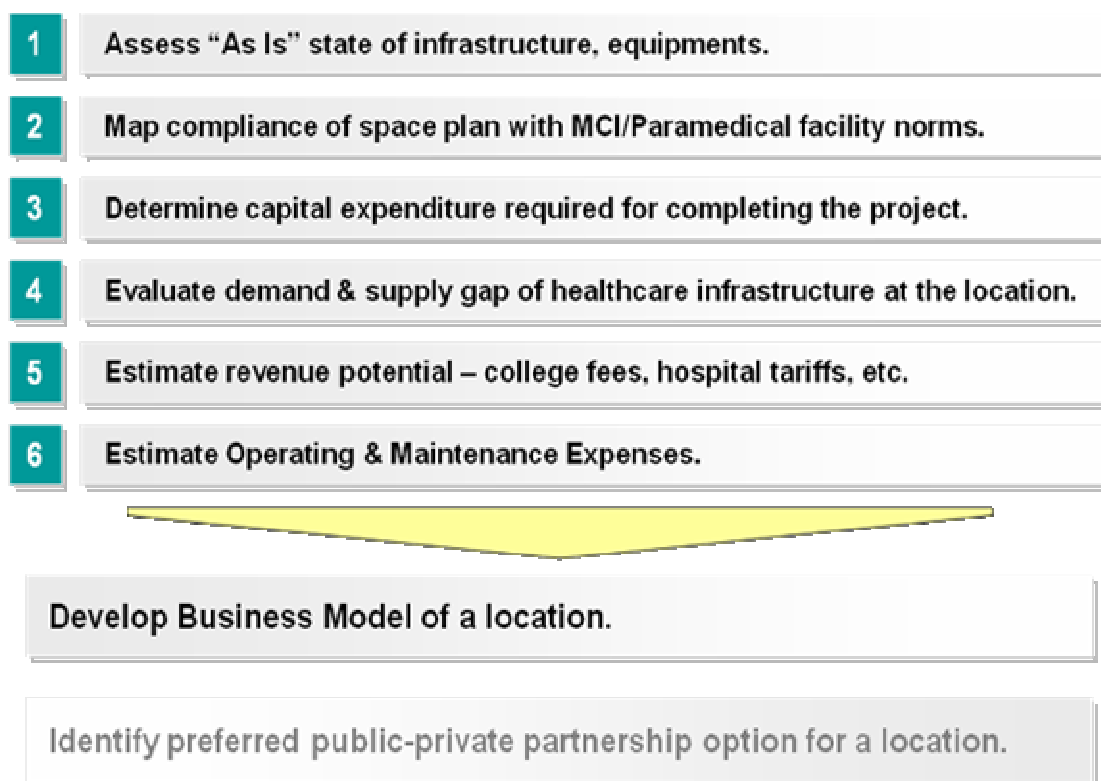
1. Take-over the facilities on as 'as-is where is' basis and complete the balance construction.
2. Obtain the necessary licenses/regulatory approvals required for starting and operating the College.

GOUP has appointed CRISIL Risk & Infrastructure Solutions (CRIS) as the Transaction Advisors for this project. CRIS has formed a consortium with Hosmac India Private Limited (Hosmac) a hospital management consultancy to execute the project. CRIS and Hosmac are required to assess the project for investors, prepare the contractual documents for inducting the Concessionaire and conduct the bid process management exercise for identifying the Concessionaire who will partner with GOUP for the development and operation of the Projects.

The following report estimates the investment required to complete the Safai project, forecasts and analyses the project's financials.

3. METHODOLOGY

A three pronged methodology was devised for this assignment; a snapshot of the approach that was adopted has been presented below.



Facility and Market Assessment

CRIS and Hosmac had extensive interactions with GOUP to understand their objectives and requirements from this project. Subsequently, it met different key stakeholders from DGME and at each of the project site. A team of consultants visited each site for “As Is” Assessment of the facility to assess the progress of the civil work and tentative time frame required for the completion of the project. Wherever available, site plans and periodic progress reports were collected from each site. Meeting and discussion with key stakeholders on site like principal, chief medical superintendent and project site managers to collect the relevant data; understand project status and lacunae in the existing facility, if any.

A team of consultants undertook a market assessment to understand the supply/demand situation for paramedical education infrastructure in the region. Review of paramedical education policy/guidelines/ government orders of the state, INC, AICTE and GOI to assess their implication on this project.

Through these site visits and meetings the following information was obtained:

- Current Supply of Healthcare, medical and paramedical Infrastructure: Review of existing Healthcare, medical and paramedical infrastructure at each location enables to determine supply and demand of medical and paramedical professionals at each location.
- Existing Paramedical Education Guidelines and Framework: To understand scope and limitation from INC, UPSMFC, DGME, GOUP or any other that shall impact articulation of PPP structure of the project.
- Existing medical & Paramedical Colleges and hospitals: To understand governance and operating model of Govt. and private Paramedical Colleges in the state of UP. The existing fee for the medical courses, reservation pattern, operating model, income and expenses of these facilities.
- Mapping of the Site Plans: To understand the compliance of the project with INC, AICTE and other course specific guideline for the Paramedical College infrastructure.
- Project Progress & Cost Report: To understand progress status, timeframe required to complete the project, funds released by the GOUP.
- Project Specific Obligations: To identify project specific obligations, if any, that shall impact the proposed PPP model and framework.

Subsequently the data/document collected, findings of the field assessment were supplemented with secondary information available with CRIS and Hosmac. These market inputs and reviews had also helped in setting bid criteria for the private players and provide inputs/support for the financial assumptions.

Project Assessment Study & Framework

Based on above assessments, a financial model was prepared to assess the investment for the alternative scenarios. The model inputs were estimated in the following manner:

- Capital Costs for completion of the balance civil work and procurement of equipment at each site was assessed based on funds spent by GOUP and project status and addition fund required to complete civil work and procure remaining equipment required to start the facility.
- Capital Structure of the project and cost of debt was estimated based on inputs from CRISIL Ratings and reconfirmed based on discussions with industry sources.
- Revenues were projected based on the course to be offered, No. of seats, seat sharing pattern between GOUP and private player and capacity utilization levels.
- Operating Costs were estimated considering the cost structure of existing Govt. and private medical /Paramedical Colleges in the region and the industry in general.

Based on above assessments, the financials of the project was assessed.

4. INTRODUCTION TO HEALTHCARE & MEDICAL EDUCATION SCENERIO IN INDIA

4.1. India Healthcare Market Overview¹

The healthcare delivery market in India is expected to grow at a CAGR of 12 per cent over the next 5

The healthcare delivery market of India to reach Rs 2,977 billion by 2013-14, driven by an increase in the number of treatments as well as the cost per treatment. However, investments in healthcare infrastructure have been low in the past, and hence, the prevailing infrastructure in the sector is not robust enough to cater to the needs of the population.

The country has only 1.04 hospital beds per 1,000 population as against the global average of 3.0 - 3.5 beds per 1,000 population. Apart from physical infrastructure, India has also been facing a shortage of physicians, and especially, nurses. The scarcity of beds coupled with a fast growing market represents a huge investment opportunity for players in this industry. We expect the healthcare sector to witness investments worth Rs 873 billion over the next 5 years.

While India has been witnessing a dearth of hospital beds for many years now, the shortage has assumed critical proportions in the country's rural areas. Setting up of secondary care hospitals in Tier II and III cities would improve this scenario to a considerable extent, as they would be able to cater to urban as well as rural demand, which is being met by hospitals in the metros at present. In this report, CRISIL Research has focused on secondary care hospitals and has analyzed the growth potential of this segment of the healthcare industry.

We believe there is a huge opportunity for large organized players to set up secondary care hospitals in Tier II & III cities and small cities and towns with dearth of healthcare infrastructure. These hospitals offer several advantages to both consumers and healthcare providers. Consumers are benefited by way of greater proximity and access to high quality healthcare services at lower costs. At the same time, healthcare providers are presented with a large, growing, under-penetrated, profitable market. Nevertheless, while secondary care hospitals offer attractive returns (Project IRR - 14.1 per cent) to healthcare providers, they are not as profitable as tertiary care hospitals (Project IRR - 16.4 per cent).

While there is clearly a market for the setting up of secondary care hospitals in India, such hospitals would also face certain key challenges. The challenges would include affordability of healthcare services, competition from local players and also attracting talented medical professional to these cities/towns.

The potential in the segment has not gone unnoticed by players in the healthcare sector. To take advantage of this growing, profitable market, the two largest healthcare providers in the country,

¹ Source: CRISIL Research – Hospitals Outlook – Executive Summary 2010

Apollo Hospitals and Fortis Healthcare have announced plans to set up secondary care hospitals in Tier II and III cities.

4.2. Need For Secondary Care Hospitals

India is presently facing an acute shortage of healthcare infrastructure in terms of both hospital beds and healthcare professionals such as doctors and nurses. The country currently has about 1.00-1.05 hospital beds per 1,000 population (2007) as against the global benchmark of about 3.0 - 3.5 beds per 1,000 population. The need for additional secondary care hospitals becomes even more evident when viewed in an urban vis-à-vis rural context.

4.3. Budget 2009–2010: Healthcare Perspective²

- The government has provided considerable support to the healthcare industry through the 2009-10 budget.
- All Below Poverty Line (BPL) families to be covered under Rashtriya Swasthya Bima Yojana (RSBY).
- Allocation under RSBY increased by 40 per cent over previous allocation to US\$ 74 million in B.E. 2009-10.
- The government has announced several measures which will have a positive impact on the sector such as:
 - 150 per cent reduction in R&D outsourcing expenditure would encourage higher research spend and improve competitiveness of outsourcing players
 - Allocation under National Rural Health Mission (NRHM) proposed to be increased by US\$ 431 million over and above US\$ 2.53 billion provided in the Interim Budget.

4.4. Medical Education And Workforce–India

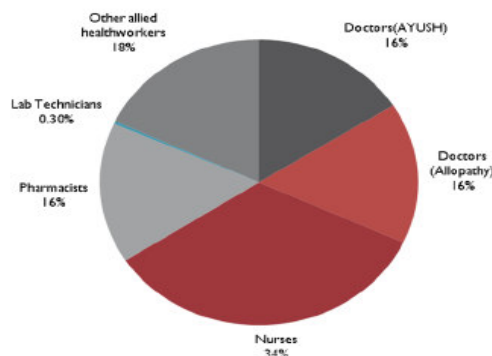
4.4.1. Healthcare Workforce statistics

- Number of Doctors -688,000
- Number of Nurses -14,62,000

4.4.2. Medical Education

- 229 recognized medical colleges, of which 106 established through the private route
- 25,000 medical graduates pass out each year
- 136 medical schools admit more than 6,000 PG trainees in their programmes

Composition of India's human resources for health



Source: Global atlas of the health workforce [online database]. Geneva, World Health Organization, 2008. Period of data is 2000-2006.

Numbers for 'other allied health workers' are for the year 2004

² Source: India Budget 2009, Ernst & Young 2009; Budget 2009–2010 □ India budget website, <http://indiabudget.nic.in/>, accessed 24 September 2009

4.4.3. Medical institutions pan India

- Density of registered doctors and nurses in India is 1.9 per 1000 population, which is less than half of the world average of 4.1 and lower even when compared to global norms⁽⁵⁾ as well as the norm of 2.25 set by NCMH.
- The number of non-allopathic doctors in India is slightly more than the number of allopathic doctors.
- Ayurvedic doctors are almost 63 per cent of AYUSH doctors (practitioners of Ayurvedic, Unani, Siddha and Homeopathy systems of medicine).
- General Practitioners constitute almost 90 per cent of total doctors

4.5. Paramedical Education Regulation In India

Indian Nursing Council (INC)

The Indian Nursing Council is an autonomous body under the Government of India; Ministry of Health & Family Welfare was constituted by the central Govt. Under section 3(91) of India Nursing Council Act, 1947 of parliament. The INC regulates nursing education system across India.

Pharmacy Council of India (PCI)

The Pharmacy education and profession in India up to graduate level is regulated by the PCI, a statutory body governed by the provisions of the Pharmacy Act, 1948 passed by the Parliament.

All India Council for Technical Education (AICTE)

All India Council for Technical Education (AICTE) was set-up in November 1945 as a national level Apex Advisory Body to conduct survey on the facilities on technical education. The purview of AICTE (the Council) covers programmes of technical education including training and research in Engineering, Technology, Architecture, Town Planning, Management, Pharmacy, Applied Arts and Crafts, Hotel Management and Catering Technology etc. at different levels

4.6. Public Private Partnerships (PPP) in Healthcare³

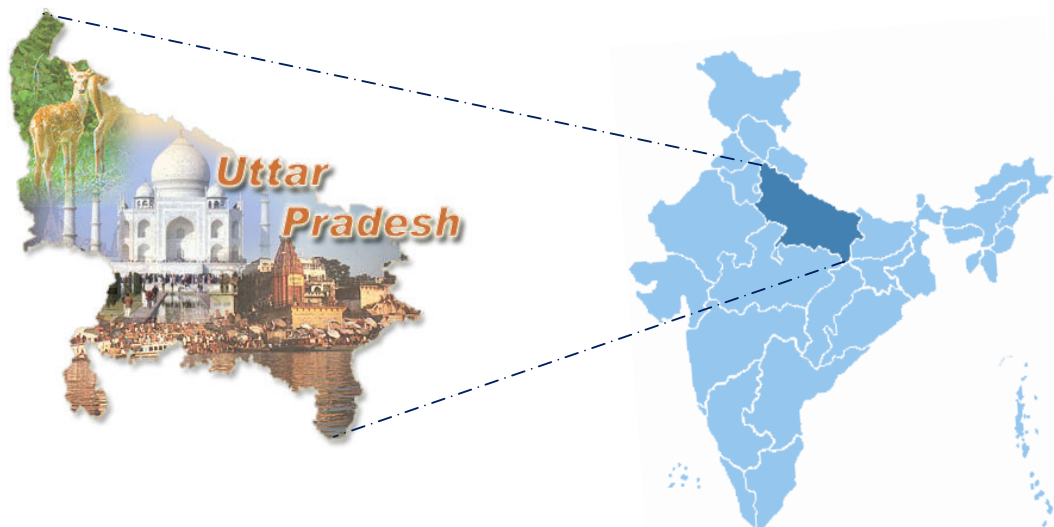
- Various state governments are collaborating with the private sector through PPP to improve the inefficiency and decrease the inequity in the health system.
- Partnership initiatives range from super-specialty tertiary-care hospitals (Apollo Hospital, Raichur; SMS hospital, Jaipur) to primary care (Karuna Trust in Karnataka) and slum communities (Arpana Swasthya Kendra, Delhi; urban slum care in the district town of Adilabad, Andhra Pradesh).
- Community health insurance initiatives have also been undertaken in terms of Arogya Raksha scheme in Andhra Pradesh and Yeshasvini scheme in Karnataka.

³ Sources: Ten industry trends 2009, Technopak healthcare outlook, 2009,

- Chiranjeevi Yojna is a public private partnership which has dramatically reduced maternal and infant mortality in the state of Gujarat.
- The NHS (National Health Service) of Britain, with an annual budget of US\$ 100 billion, is also eager to invest in PPP ventures in India, starting with West Bengal in the initial phase.

5. INTRODUCTION TO UTTAR PRADESH

Exhibit 1: Map of Uttar Pradesh



Uttar Pradesh (UP) is located alongside Nepal in the North, Himachal Pradesh on the North West, Haryana on the west, and Rajasthan on the south west, Madhya Pradesh on the south and south-west and Bihar on the east. Situated between 23° 52'N and 31° 28' N latitudes and 77° 3' and 84° 39'E longitudes, this is the fourth largest state in the country encompassing 2,94,411 square kilometers and comprising of 83 districts, 901 development blocks and 112,804 inhabited villages.

5.1. Demographic Profile

The total population of Uttar Pradesh in year 2008 was 19 Crores and in year 2001 was 16.6 crore. The decadal population growth is ~2%. The population density per sq. km. in 2001 was 698. The BPL population in the state is 31.15% and Literacy rate of 57.37%. The sex ratio in Uttar Pradesh in 2001 was 898 females per 1000 males.

5.2. Economic Insight

UP has a large economy, it has a share of 10.7 % in aggregate domestic product of India. The State covers a large part of the highly fertile upper Gangetic plain consequently the major economic activity in the state is agriculture. Uttar Pradesh is home to largest number of Small Scale industrial units in the country.

5.3. Medical & Paramedical Human Resources of the State

There are 58,000 allopathic doctors registered in UP Medical Council of which around 40,000 doctors are working in UP. 56,000 nurses are registered with the UP State Medical Council of which around 43,000 nurses are presently working in the state. The UP State Medical Council estimates that there

is a gap of around 12,900 doctors and 1,19,800 nurses as of 2009. The following table provides an overview of the availability and gap in healthcare professionals in the state.

Table 1: Healthcare Professionals: Availability, Need and Gap in UP

NO.	HEALTHCARE PROFESSIONAL	PRESENTLY AVAILABLE	NEED *	GAP IN THE AVAILABILITY
1	Allopathic doctors	40,000	52,857	(-) 12,857
2	Dentists	4,000	24,000	(-) 20,000
3	Nurses			
a	GNM	16,000	1,00,000	(-) 84,000
b	BHW(F)	27,000	60,000	(-) 33,000
c	DNEA	-	500	(-) 500
d	B. Sc. (N)	200	2,500	(-) 2,300
3	M. Sc. (N)	-	400	(-) 400
4	Paramedical			
a	Pharmacists	30,000	88,500	(-) 55,000
b	O.T. Technician	1,200	4,625	(-) 3,425
c	Optometrist and Orthopedician	2,000	7,400	(-) 5,400
d	Physiotherapist and Occupational Therapist	2,500	7,400	(-) 4,900
e	X-ray Technician	1,000	7,400	(-) 6,400
f	Laboratory Technician	3,500	7,400	(-) 3,900
g	CT scan Technician	30	200	(-) 170
h	MRI Technician	-	200	(-) 200
i	Audiometrist	-	740	(-) 740
j	Cytology technicians	-	370	(-) 370

*as estimated by U.P. State Medical Faculty

Source: U.P. State Medical Faculty

5.1. Medical Education Regulation in the State of UP

Department of Medical Education and Training (DMET), UP regulates the functioning of Medical Colleges in UP. U.P. State Medical Faculty & Allied Council regulates the functioning of paramedical education in UP.

Table 2: Process to Open New Nursing & Paramedical College as per UPSMFAC

PARITUCLARS	DETAILS
<i>Eligibility</i>	
The Applicant	Person-Society-Trust-Company
Area for Nursing Course	55000 SQ. Ft.
Area for Other Paramedical Courses	10000 Sq. Ft.
Hospital Requirement for Nursing Course (1:3)	Minimum 120 Beds Owned or affiliated
Hospital for Other paramedical courses	100 beds multispecialty
Essentiality Certificate from GoUP	

5.2. Medical Education Infrastructure in Uttar Pradesh

There is a need to double the existing medical education infrastructure in UP. Presently there are total 21 Medical Colleges of which 10 are Government Colleges and balance private. The Colleges have an intake capacity of 2062 students per year. The UP State Medical Council estimates that there is a gap of around 12,900 doctors as of 2009 highlighting need for Medical Colleges to be set up in the State. Further there is no degree level Paramedical College in UP state to bridge the current gap and future demand of paramedical staff in the state.

Table 3: List of Medical & Paramedical Institutes & Capacity Details

NO.	PROGRAMME	NUMBER OF INSTITUTES#		YEARLY CAPACITY		TOTAL CAPACITY
		GOVERNMENT	PRIVATE	GOVERNMENT	PRIVATE	
1	M.B.B.S.	10	11	1062	1000	2062
2	Dental	3	27	130	2650	2780
3	Nursing					
a	M Sc.	0	4	0	85	85
b	B. Sc.	0	22	0	1100	1100
c	Post Basic B Sc.	1	4	25	140	165
d	GNM	0	100	0	4315	4828
e	BHW (F)	38	31	2280	1800	4080
f	DNEA	0	1	0	20	20
g	Health Visitors	4	0	80	0	80
4	Paramedical*					
a	Pharmacy	4	1	240	60	300
b	O.T. technician	0	72	0	1745	1745
c	Optometry	0	89	0	2735	2735
d	Orthoptics	0	11	0	185	185

NO.	PROGRAMME	NUMBER OF INSTITUTES#		YEARLY CAPACITY		TOTAL CAPACITY
		GOVERNMENT	PRIVATE	GOVERNMENT	PRIVATE	
e	Physiotherapy	0	106	0	3465	3465
f	Occupational Therapy	0	4	0	130	130
g	X Ray Technician	7	5	310	150	460
h	Laboratory technician	7	5	150	530	680
i	CT scan technician	0	12	0	200	200
j	MRI technician	0	1	0	30	30

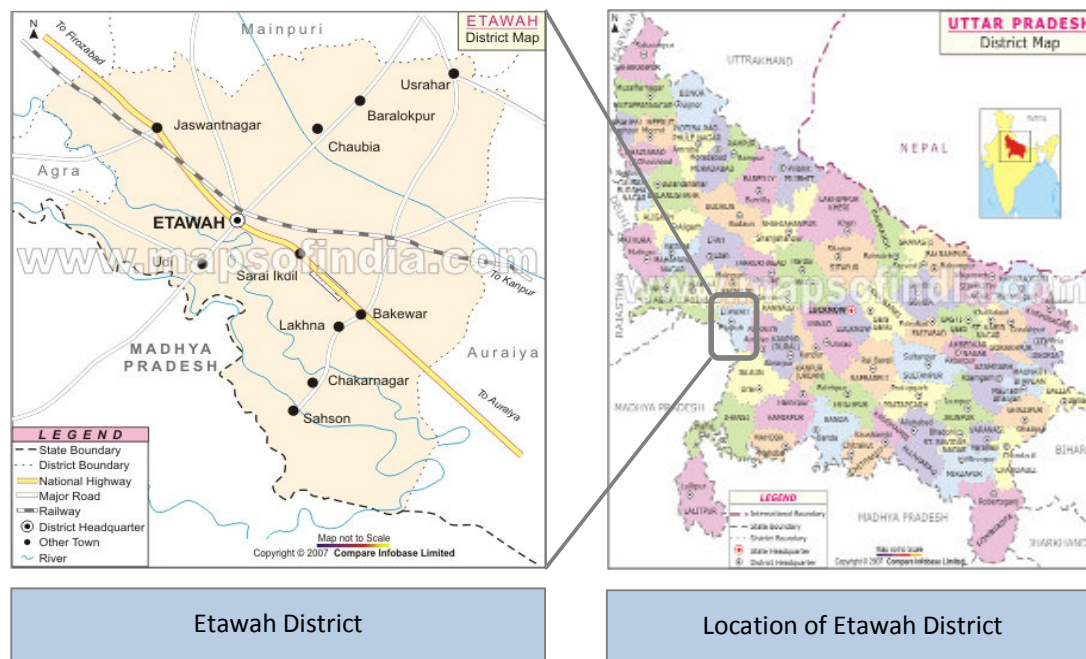
Source: DMET and HOSMAC

Includes Recognized and Permanent Colleges

* Diploma Course

6. INTRODUCTION TO SAFAI (ETAWAH)

6.1. Location Overview



It is bounded on the north by the districts of Farrukhabad and Mainpuri, while the small extent of western border adjoins tahsil Bah of the Agra district. The eastern frontier marches with the district of Auraiya, and along the south lies Jalaun and the district of Gwalior, the division line being, except for a short distance, the Chambal and Yamuna rivers.

6.2. Demographic Profile

The total population of the Etawah district in year 2001 was 13.40 Lakh, with 7.22 Lakh Males and 6.18 Lakh females, a decadal growth rate of 21.59% in 1991-01. The population density per sq. km. in 2001 was 586. The district has a Literacy rate of 70.75%, Literacy rate of 81.15% among males, 58.49% among females and a sex ratio of 856. The projected population of Etawah for 2011 is 29.80 Lakh and for 2021 is 35.73 Lakh. The per capita income of Etawah is Rs. 14420

Table 4: Etawah District Demographic Details

INDICATORS	UNITS
Population	13.40 Lakh
Decadal Growth rate	21.59%
Population Density	586
Literacy Rate	70.75%
Male	81.5%

INDICATORS	UNITS
Female	58.49%
Sex Ratio	856
Per capita income	Rs. 14420
Projected population (2011)	29.80 Lakh
Projected population (2016)	16.66 Lakh
Population in 0-6 years	230617
Working age group (15 – 59 Yrs)	820554
Households living in a temporary structure	27.3%
Households living in semi-permanent structure	13.1%

6.3. Economic Insight

The district has a good agricultural base and a reasonably good infrastructure of various facilities. The main occupation in Etawah is Agriculture. Poultry keeping, as an important subsidiary occupation, is becoming very popular among farmers since the last few years. The rivers and tanks of Etawah are abundant in fish enabling people to be engaged in Fisheries. Oils, wheat flour, dal, rice, chemicals, engineering goods, plastic goods, grass ware, electrical, leather goods, and textile and allied products are produced in a large number of small-scale units, which are mainly located in the urban areas. The investment and production of goods in small scale industries sector have gone up and it appears that now the industries have become more capital-intensive.

6.4. Healthcare Infrastructure

The district has 2 District hospitals (1 Male & 1 Female), 3 Community Health Centers and 3 Primary Health Centers. Etawah has 4.66 Allopathic hospitals/Dispensaries per Lakh population and 27.86 beds in Allopathic hospitals/Dispensaries per Lakh population

Table 5: Healthcare Infrastructure Details

NAME OF THE DISTRICT	POP. 2001	DECADAL GROWTH RATE	POP. 2016	PER CAPITA INCOME	TOTAL NO. OF BEDS IN PUBLIC & PVT. ALLOPATHIC HOSPITALS/DISPENSARIES PER LAKH POPULATION	NEED GAP - HC (NO. OF BEDS REQUIRED PER LAKH POP.)
AZAMGARH	3,950,808	26.28	5,220,367	8900	53.2	276.8
SAHARANPUR	2,848,152	23.35	3,606,855	21290	61.0	269.0
JALAUN	1,455,859	19.39	1,686,147	16989	65.9	264.1
BANDA	1,500,253	18.49	1,831,475	12435	62.4	267.6
KANNAUJ	1,385,227	19.58	1,617,634	15920	53.9	276.1
ETAWAH	1,340,031	21.59	1,666,773	14420	55.7	274.3

JHANSI	1,746,715	23.23	2,196,209	19250	195.6	134.4
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Source: Secondary Survey

Table 6: List of Hospitals in Etawah District

S.NO.	HOSPITAL NAME	PUBLIC/ PRIVATE
1.	ADITYA HOSPITAL & HEART CARE CENTRE	PRIVATE
2.	DISTRICT HOSPITAL	PUBLIC
3.	DUVEEP KIRAN HOSPITAL	PRIVATE
4.	JABAR SINGH KAUSHALYA DEVI	PRIVATE
5.	JK HOSPITALS PVT. LTD	PRIVATE
6.	MAHILA HOSPITAL	PUBLIC
7.	SANT GL MEMORIAL HOSPITAL	PRIVATE
8.	SARYU DEVI NURSHING HOME	PRIVATE
9.	SHIVAM SURGICAL NURSING HOME	PRIVATE
10.	SURYA SURGICAL & MATERNITY CENTRE	PRIVATE
11.	UP RURAL INSTITUTE OF MEDICAL SCIENCES & RESERCH	PRIVATE

Source: Secondary Survey

6.5. Medical and Paramedical Education Infrastructure

The District has one Govt. Medical College - U.P. Rural Institute of Medical Sciences and Research (RIMS), located at Safai Village, approx. 22 Km from the Etawah city. RIMS offer a MBBS course with an intake capacity of 100 students per year. There is also one Pharmacy college, Shri R.L.T. Institute of Pharmaceutical Sciences & Technology College in the district.



Academic Block of RIMS, Safai



Hospital Block of RIMS, Safai

6.6. Healthcare Infrastructure - Need and Gap Analysis

There is no Paramedical College in Etawah district at present offering Nursing, Physiotherapy, Radiology Technology, Medical Laboratory and other courses. This Paramedical College at Safai will help in providing for the much needed trained human resources in the healthcare domain. The upcoming Paramedical College will help in bridge the gap in the existing healthcare paramedical education infrastructure in the region.

7. PROJECT OVERVIEW

7.1. Project Brief



Academic Block



Hostel Blocks



RIMS Hostel Building in Backdrop



Academic & Lecture Hall Block

Safai Institute of Para – Medical Science

The Government of UP is establishing a Paramedical College under the name of “Safai Institute of Para – Medical Science” within the campus of Rural Institute of Medical Sciences, (RIMS) Safai in Etawah district. The project is spread over 44 acres of land acquired by GoUP.

The construction work of Academic block, Administrative Block is complete and final finishing work i.e. electrical & plumbing fixture fittings is in progress. Construction work of hostels, residential blocks, auditorium, examination hall, and other necessary blocks are in different stage of construction ranging between 60 to 80%. Site development, sewer line, street lighting and other site development work is pending. The balance work can be completed within 6-8 months and college shall be operational for admission in the academic year 2011-2012.

7.2. Facility Design

The college is designed as per the INC, AICTE, UPSMFAC guidelines and other such councils as applicable for the proposed paramedical courses. The following table describes the features of the Paramedical College at Safai.

Table 7: Features of Paramedical College

PARTICULARS	AVAILABLE AT SAFAI MEDICAL COLLEGE
Land	Approx 44 Acre
Academic Block, Administrative Block	Available as required
Central Library	Not Available in the Paramedical College Campus. It was proposed to plan and developed to share with RIMS, since the project was proposed to be part of RIMS
Auditorium / Examination hall	Available as required
Teaching Hospital	Not attached with Paramedical College, but proposed to be associated with RIMS.
Hostel – Students	Available as required
Residential Complex	Available as required

Source: UPRNNL & Project Site Plans

7.3. Project Cost Overview

The estimated cost of the project was Rs. 165.95 crore for the Building & Site Development which has been released by GOUP. The overall physical progress of the project is 80% with an estimated time frame to complete balance work of 5-6 months.

The estimated cost for furniture & fittings, medical and non medical equipments was Rs. 13.50 Crore, till date no medical or non medical equipment are procured. It is proposed that most of the medical equipment required is to be shared with RIMS. The GOUP have released Rs. 154.75 Cr. for the civil work and site development.

Table 8: Cost Estimates

(Rs. Crores)

PARTICULAR	ESTIMATED COST	AMOUNT RELEASED	PROGRESS
Building & Site Development – College & Hostel Block	143.48	132.28	85 %
Civil Work – Auditorium &	22.47	22.47	53 %

Examination Hall			
Additional Furniture & Fittings + Medical & Non Medical Equipment (Partially Shared with RIMS)	1,350		-

Source: UPRNNL Progress Report

* Detailed Project Progress Report is provided in the Annexure

7.4. Project Specific Obligation Identified

The key project specific obligations that were identified discussed and finalized before preparing Business Model/PPP Structure.

Table 9: Cost Estimates

POINT OF CONTENT	DETAIL	IMPACT ON THE PROJECT	SUGGESTED INPUT FOR FINANCIAL MODEL BY GOUP
Seat Sharing	Allocation of seat between general, reserved and concessionaire categories.	No. of seats to be allocated to concessionaire will impact the concessionaire's revenues and earnings from the project.	Seats sharing shall be 50:50 between GOUP and Concessionaire. Seats sharing pattern as detailed in Table 10
Academic Fees	Academic Fees for Govt. Seats, Management and NRI Seats to be charged at this Paramedical College.	Fees will impact the concessionaire's revenues and earnings from the project.	Fees structure assumed is as detailed in Table 11
Associated Hospital	Paramedical courses require a hospital to be associated with college. Paramedical College at Safai does not college's standalone hospital as RIMS was proposed to be associated hospital.	Whether RIMS will be used as associated hospital or concessionaire shall construct or associated with some other hospital. In case RIMS cannot be used as associated hospital for this project, the funds required to be invested or cost of operating shall increase and will impact the concessionaire's revenues and earnings from the project.	RIMS shall be used as an associated hospital for this project. As per the initial assessment and discussions there shall be no association fees to be given by concessionaire.
Concession Period	Concession period to be provided to the Developer.	Concession period will impact the concessionaire's revenues and earnings from the project.	Concession period to be assumed for 50 years.

8. ASSUMPTIONS FOR FINANCIAL PROJECTION

This chapter describes the capital cost, revenue and operating cost assumptions considered for projecting the financials of the Safai Paramedical College.

8.1. Project Cost Assumptions

8.1.1. Capital Cost

The capital cost comprises of components as detailed in the column “A” of the following table. The estimated cost of the project incurred by the GOUP is mentioned in the column “B”. Funds released till March 2010 by the GOUP for the purpose of the civil work and equipments are mentioned in column “C”.

The pending work for which GOUP has released the fund will be completed by the respective project agencies undertaking civil work/equipment. The Funds required to be invested by Concessionaire is mentioned in the column “D”.

The break-up of the project cost is provided in the following table.

Table 10: Project Costs break-up

(All Figures in Rs. Lakh)

PARTICULARS	INITIAL ESTIMATED COP*	FUNDS RELEASED BY GOUP.	FUND TO BE INVESTED BY PRIVATE PARTNER	TOTAL COP
A	B	C	D	E
Land				
Building + Site Development	16,360	12,879	3,481	16,360
Furniture & Fittings + Medical & Non Medical Equipment (Partially Shared with RIMS)	1,350		1,350	1,350
Automobiles - Ambulance & Other Vehicles			30	30
Total Base Cost	17,710	12,879	4,861	17,740

Source: UPRNNL and Hosmac

COP – Cost of Project

8.1.2. Maintenance Capital Expenditure

The College will undertake periodic replacement/refurbishment of the medical equipments. It is assumed that 10% of the equipment (in terms of cost) will have to be replaced every year after 10th year of the operations.

8.1.3. Construction phasing

The project is nearly complete in terms of its civil work and orders for a number of equipments have been placed. Pending civil work (if any), equipments are assumed to be completed within 6- 8 months enabling the College to be fully functional for the academic year 2012-13.

8.2. Project Financing Assumptions

8.2.1. Means of Finance

The balance project cost would be funded by equity.

8.3. Income from College

8.3.1. Proposed Course Details

The Details of the course to be offered are provided in the following table.

Table 11: Details of Course

COURSES	COURSE DURATION (YR.)	INTAKE CAPACITY
B. Sc. Nursing	4	50
B. Pharm	4	50
B. P. T.	4	50
B. O.T	4	50
B. Path. T.	3	50
B. R. T.	3	50
B. Opt. T.	3	50
M.P.H.	2	50
M.H.A	2	50
TOTAL		450

Source: DMET, Project DPR and Hosmac

8.3.2. Seats Sharing Details

The seats sharing between the GOUP and the Concessionaire will be in the ratio of 50:50. 50% of the GOUP seats will be offered to students from the reserved category and the remaining 50% would be for general category. The Concessionaire will have the balance 50% of which, 50% seats shall be reserved for SC, ST and OBC category, 30% seats will be offered to NRI/PIO/FN and balance 20% seats will be management seats. However, the Concessionaire shall be allowed to charge the same amount of fees from the reserved category seats as those charged to its quota of general category seats. The seat distribution is tabulated below.

Table 12: Details of Seats Sharing

CATEGORY	% OF SEATS	REMARK
GOUP	50%	Government Seats – (SC+ST+OBC : reserved Category)
		Government Seats - General Category
Management Seats (Concessionaire)	50%	Of the Concessionaire seats, 50% seats shall be reserved for SC, ST and OBC category, 30% seats will be offered to NRI/PIO/FN and balance 20% seats will be management seats.

Source: DMET

8.3.3. College Fees Details

The fee for the college assumed is at par with the existing fees structure in the Government and Private Paramedical Colleges in the state and other states.

Table 13: Details of Fees

COURSES	GOVT. SEATS		MANAGEMENT SEATS
	RESERVED CATEGORY	GEN. CATEGORY	
B. Sc. Nursing	12,500	17,000	50,000
B. Pharm	12,500	17,000	70,000
B. P. T.	12,500	17,000	60,000
B. O.T	12,500	17,000	60,000
B. Path. T.	12,500	17,000	60,000
B. R. T.	12,500	17,000	60,000
B. Opt. T.	12,500	17,000	60,000
M.P.H.	12,500	17,000	90,000
M.H.A	12,500	17,000	90,000
Hostel+Mess+Elec Charges	18,900	18,900	40,000

Source: UP-DMET and Market Survey

8.3.4. Occupancy of the Seats

It has been assumed that few courses like B. Sc (N) and B. Pharma will be high demand courses having full occupancy of seats from first year onwards. Remaining course is assumed to have moderate demand mainly due preference of diploma courses over degree course in these branches and secondly smaller gap or requirement of human resource from these branches as per UPSMFAC statistics. The moderate demand course are assumed to have occupancy of 30 seats out of 50 seats in the first year with yearly incremental increase in the demand of 5 seats reaching to a maximum of 50 seats in 5th year.

Table 14: Occupancy of Seats

COURSES	INTAKE CAPACITY	INTAKE BUILD UP				
		YR. 1	YR. 2	YR. 3	YR. 4	YR. 5
High Demand Courses						
B. Sc. Nursing	50	50	50	50	50	50
B. Pharm	50	50	50	50	50	50
Moderate Demand Courses						
B. P. T.	50	30	35	40	45	50
B. O.T	50	30	35	40	45	50
B. Path. T.	50	30	35	40	45	50
B. R. T.	50	30	35	40	45	50
B. Opt. T.	50	30	35	40	45	50
M.P.H.	50	30	35	40	45	50
M.H.A	50	30	35	40	45	50
Total Seats	450	310	345	380	415	450

8.3.5. Other Income from College

Application forms: It is assumed that there will be one applicant per seat who will purchase the application form for the admission. Rate of application for the reserved category, general category and management category is assumed to be Rs. 100, Rs. 250 and Rs. 250 respectively.

Hostel and Mess Charges per annum are assumed as per category of seats. Fees is as tabulated below.

Table 15: Hostel and Mess Charges Details

COURSES	GOVT. SEATS		MANAGEMENT SEATS
	RESERVED CATEGORY	GEN. CATEGORY	
Hostel + Mess+ Electricity Charges from Student per annum	18,900	18,900	40,000

8.4. Operating Expenses

8.4.1. Staff Requirement

A total manpower required is based on the INC, AICTE and UPSMFAC. Its ramp up is assumed based on the No. of students per year. The total number of staff and ramp up per year is as tabulated below:

Table 16: Category wise Staff Details

CATEGORY	NUMBER OF STAFF
Administration - College	

CATEGORY	NUMBER OF STAFF
Principal	1.00
Registrar (Vice Principal)	1.00
Administrative officers	4.00
Accountants	6.00
Electrician, carpenter, plumber	4.00
Driver	4.00
Security	15.00
College Faculty	
Professors	18.00
Reader / Assoc. Professor	18.00
Lecturer	27.00
Tutor / Clinical Instructor	18.00
Steno Typist	8.00
Office Clerk	10.00
Store Keeper	4.00
Lab Asst.	18.00
Lab. Attendant	27.00
Peons / Office Boys	30.00
Total	213.00

Table 17: Staff Ramp up Details

Staff	Yr. 1	Yr.2	Yr. 3	Yr. 4	Yr. 5
No. of Students	310	345	380	415	450
Student Strengthen	69%	77%	84%	92%	100%
Total Staff Required	149	170	213	213	213
% Capacity Utilization	70%	80%	100%	100%	100%

Source: INC, AICTE, UPSMFAC and Hosmac

8.4.2. Salary Assumption

The salaries for the academic staff, salaries are determined per the UP Government pay scale (after considering for 6th pay commission impact). The salaries for Non-teaching and other staff are at par with private hospital salary scale. Bonus, Gratuity, EPF & Allowances are considered at 15% of annual salary per annum.

Table 18: Staff and Salary Details

CATEGORY	NO. OF STAFF	SALARY PER MONTH	TOTAL PER ANNUM
Administration - College			
Principal	1.00	75,000	900,000
Registrar (Vice Principal)	1.00	45,000	540,000
Administrative officers	4.00	12,000	576,000
Accountants	6.00	9,000	648,000
Electrician, carpenter, plumber	4.00	6,500	312,000

CATEGORY	NO. OF STAFF	SALARY PER MONTH	TOTAL PER ANNUM
Driver	4.00	4,500	216,000
Security	15.00	4,000	720,000
College Faculty			
Professors	18.00	45,000	9,720,000
Reader / Assoc. Professor	18.00	30,000	6,480,000
Lecturer	27.00	22,000	7,128,000
Tutor / Clinical Instructor	18.00	15,000	3,240,000
Steno Typist	8.00	6,000	576,000
Office Clerk	10.00	7,000	840,000
Store Keeper	4.00	7,500	360,000
Lab Asst.	18.00	7,500	1,620,000
Lab. Attendant	27.00	6,000	1,944,000
Peons / Office Boys	30.00	4,000	1,440,000
Total	213.00		37,260,000
Add : Margin for Bonus & Welfare --- -->	%	15%	5,589,000
TOTAL Salary Exp.			42,849,000

Source: Hosmac

8.4.3. Miscellaneous & Other Expense

The various miscellaneous expenses like Canteen & Mess, Water, Cooking Gas, Electricity, books & periodicals, printing stationary, travel & conveyance, Tele-communication & Internet. based on industry norms.

Table 19: Miscellaneous & Other Expense

DEPARTMENT	TOTAL P. A
Canteen Hostel Mess	2,463,750
Water	0
Cooking Gas	547,500
Electricity	1,642,500
Library (Books & Periodicals)	72,000
Printing & Stationery	120,000
Travel & Conveyance	180,000
Tele-Communication & Internet Costs	240,000

Source: Hosmac & Market Survey

8.4.4. College Registration and Periodic Inspection Fees

MCI application & registration fees, bank guarantee and annual fees for the inspection are as per prevailing UPSMFAC guidelines. The application fee of Rs. 10, 000 plus deposit of Rs. 2,00,000 for registration of the Paramedical College and technical scrutiny. Applicant also needs to provide a

bank guarantee of Rs.40 lakh per course. Charges of 1.5% of total bank guarantee amount is assumed. The annual fees are considered as Rs. 2.7 Lakh as per UNSMFAC.

Table 20: Application & Inspection Fees Details

PARTICULARS	INCEPTION FEE	REMARK
Application Fee + Deposit Along with Application Fee	Rs.2,75,000	-
Annual Fees per Course	Rs 2,70,000	Rs. 30,000 per course
Bank Guarantee	Rs. 36,000,000	Rs. 40,00,000 per course

Source: UPSMFAC and HOSMAC

8.4.5. Creditors & Debtors Period

5% of the students are assumed to require credit for paying their fees. Inventory holding period in the laboratory is assumed to be one month. Suppliers of college laboratory materials are expected to provide credit of a month.

8.4.6. Depreciation Rate

The depreciation rate considered for Straight Line and Written Down Value method for the capital assets is tabulated below.

Table 21: Depreciation rate

DEPRECIATION RATES	SLM	WDV
Land	0.00%	0.00%
Building	3.34%	10.00%
Furniture & Fittings	6.33%	10.00%
Medical Equipment	15.00%	15.00%
Non-medical Equipment	15.00%	15.00%
Automobiles	10.00%	10.00%

8.5. Income Tax Rate

Rate of Income Tax is assumed at 33.99% and Minimum Alternate Tax (MAT) at 19.93%.

8.6. Inflation Factor

All revenues and expenses are assumed to escalate at 5% p.a.

8.7. Threshold return estimation

The cost of equity (Ke) has been calculated using the CAPM model and discussions with Investors in the Healthcare/Education Sectors. The calculations for estimating the same have been provided below.

8.7.1. Ke calculation using CAPM model

$$Ke = R_f + \text{Beta} * (R_m - R_f)$$

Where:

Rf - Risk free rate of Government of India (GoI) securities

Beta - Covariance of hospital stock with respect to stock market

Rm - Expected market return

The estimation of the values of the parameters used in calculating Ke is explained below.

Risk free rate (Rf)

Rf has been estimated considering the yield on the 10 year Government of India. The yield on the bond is **8.09%** (source: RBI).

Beta

Beta for Fortis Healthcare has been used as the proxy for determining the desired rate of return. Apollo Hospitals had a 5 year beta of 0.36 which was estimated to be not representative of the risk of making investments in this sector. The details of beta were obtained from the Bloomberg database.

The Beta of Fortis was de-levered to remove the impact of debt in the respective company's capital structure. The un-levered beta of Fortis is estimated to be **0.77**.

The un-levered beta was re-levered to sensitize it for the capital structure of the project. The re-levered beta was estimated to be 1.53.

Beta for the project is estimated to be equal to the re-levered beta i.e. **1.53**.

Expected Market Return (Rm)

Rm is estimated to be equal to the average of the historical (16.8%, source: CRIS Analysis) and expected market returns (12.47%, source Bloomberg) for India. The same is expected to be **14.64%**.

Thus using above parameters, the cost of equity as per CAPM is estimated as **18.10%**.

It must be noted that discussions with private developers revealed that they require returns in the range of 16-18% from healthcare/educational sector.

8.8. Concession Period

GOUP intends to allow the Concessionaire a 50 year term for operating and managing the Paramedical College. The same has been used for the purpose of the projections.

9. ANALYZING THE PROJECT'S FINANCIALS

This chapter presents an assessment of the project's financials and returns from the Concessionaire's point of view. It also assesses the sensitivity of the project returns to key variables.

9.1. Evaluating the project revenues and expenses

The financials of the Safai Paramedical College have been projected for 50 years. This is line with GOUP's desired concession period.

In the initial 4 years revenue generated is less due to less number of students. Salaries and consumables are primary drivers of expenses at the College.

Table 22: Project Revenues and Expenses (Rs. Lakh)

YEAR	1	10	20	30	40	50
INCOME						
Total Academic Income	125	888	1,447	2,357	3,839	6,253
Misc. Income	92	207	337	549	895	1,458
Total Revenue	217	1,095	1,784	2,908	4,734	7,711
EXPENSES						
Total Salary Expense	300	665	1,083	1,764	2,873	4,680
Total Misc. Exp.	44	91	145	236	376	609
Miscellaneous (3% of above)	10	16	26	43	69	113
Repairs & Maintenance	1	2	3	5	8	13
Insurance of Equipments	44	29	18	6	8	714
Teaching Hospital Affiliation Expense	-	-	-	-	-	-
Total Expenses	400	803	1,274	2,050	3,334	5,428
PBIDT (A-B)	(183)	293	510	856	1,400	2,283
Interest on TL	-	-	-	-	-	-
Depreciation	752	549	819	991	724	1,179
PBT	(935)	(257)	(309)	(134)	710	1,104
Cumulative	(935)	(5,467)	(8,354)	(10,859)	(5,385)	(3,561)
Less: Tax	-	-	-	-	135	388

PAT	(935)	(257)	(309)	(134)	(541)	717
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Source: Hosmac and CRIS Analysis

9.2. Analysis of key financial parameters

Details of the key financial indicators has been provided in the table below and analyzed subsequently.

Table 23: Key Financial Indicators

Year	1	10	20	30	40	50
Total Revenue (Rs. Lakh)	217	1,095	1,784	2,906	4,734	7,711
Manpower costs to Total Revenues	138.02%	60.69%	60.69%	60.69%	60.69%	60.69%
EBITDA Margin	-84%	27%	29%	29%	30%	30%
Net Profit Margin	-430%	-23%	-17%	-5%	11%	9%
Project IRR	-	-	-	-	-	3.04%
Equity IRR	-	-	-	-	-	3.04%

Source: Hosmac and CRIS Analysis

Total Revenue

The college is expected to earn generate revenue of Rs. 217 Lakh in the first year and Rs. 807 Lakh in the fifth year with an average revenue of Rs. 2931 Lakh over a period of 50 years. The revenue is comparatively on lower side mainly due to lower fees structure of the Paramedical courses, absence of no NRI seats and absence of alternative stream of revenue like attached hospital like in case of a Medical College.

Manpower cost

One of the major head of expenses is Manpower cost which is on the higher side in the initial four to five years mainly due to less number of students. After 5th year manpower cost stabilizes at 61% of total revenue.

Profitability

The College is expected to earn on an average an operating margin (EBITDA) of 24 %. The net profit (PAT) margin is negative through till 30th year.

Internal Rate of Return

The expected equity IRR for this project is estimated to be 3.04%

9.3. Sensitivity Analysis

The financial projects assume that the Safai Paramedical College will have seats sharing of 50:50 between GOUP and the Concessionnaire.

If the above assumption is changed with increase in management seats from 50 to 80 seats then the project's returns will improve to some extent. The following table quantifies the above assumption on the Equity IRR:

Table 24: Sensitivity Analysis

PARAMETER	EQUITY IRR	OBSERVATION
Number of Seats Increased from 50% to 80% under the management quota	9.60%	Reduction in the number of Govt. seats by 30 increases Equity IRR by 6.0%. On account of the change in the number of management seats. Hence it is concluded that the No. of seats are <i>critical</i> for the Concessionnaire operating the college.
Additional Investment of around 25 odd crore by GOUP in the project with ideal seat sharing pattern of 50:50	6.09%	If the Additional Investment is done by the GOUP in the project. This improves Equity IRR by 3 %. Hence lesser the total investment to be made by the concessionaire in the project more attractive it will not have significant improvement on equity IRR.

10. PPP FRAMEWORK

This section provides the overview the bidding process that GOUP will follow for selecting the Concessionaire for constructing and operating the Safai Paramedical College. It also provides details of the Project Structure in terms the rights and obligations of GOUP and the Concessionaire during the Concession Period.

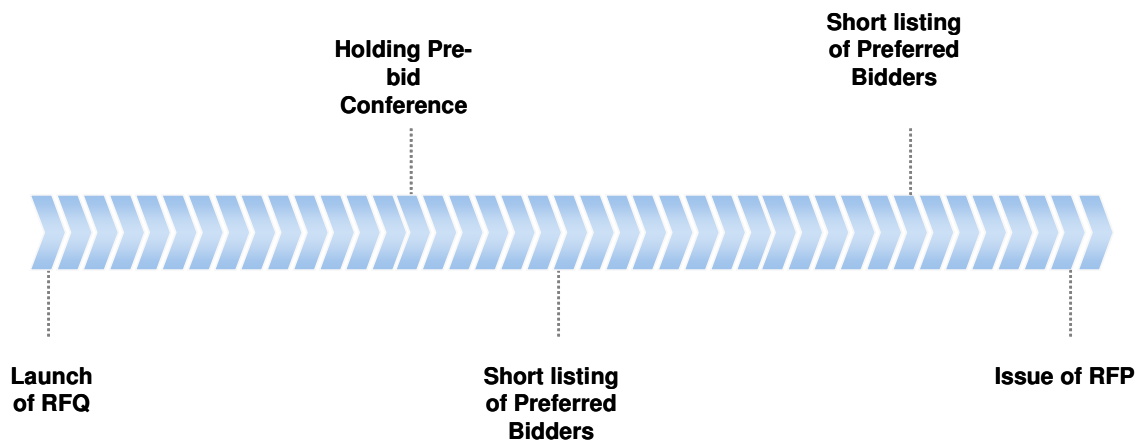
10.1. Bidding Process

Public Private Partnership (PPP) in infrastructure is essentially a contractual arrangement between a public entity and a private partner for developing and operating projects with the objective of providing efficient services at affordable costs, thus maximising welfare. However, it has clearly been seen that the success of PPP is dependent on a fair, transparent and competitive environment coupled with a sound policy and legal framework. Flaws in the framework can lead to unintended outcomes; a cautious approach coupled with due diligence is, therefore, essential while formulating the rules of engagement. The selection of the private partner holds the key to the success of a PPP project since the cost and quality of service to users over a long period would depend on the performance of the private partner. A flawed selection process can, therefore, jeopardise the entire project.

The Authority has adopted a two-stage process (referred to as the "Bidding Process") for selection of the Bidder for award of the Project. The first stage (the "Qualification Stage") of the process involves qualification (the "Qualification") of interested parties/consortia that will make an Application in accordance with the provisions of the Request for Qualification for constructing and operating a Paramedical College at Safai.

The following exhibit depicts the step by step progress of the Bidding process:

Exhibit 2: Bidding Process



In the Qualification Stage, Applicants would be required to furnish all the information specified in this RFQ. The Applicant would be required to fulfil the Technical and Financial Criteria provided in the RFQ to be short-listed for qualifying for the Bid Stage for the Project. At the end of this stage, the Authority expects to announce a short-list of qualified Applicants who shall be eligible for participation in the second stage of the Bidding Process (the "Bid Stage") comprising Request for Proposal (RFP).

The Bidders will then be called upon to submit their financial offers (the "Bids") in accordance with the RFP and other documents to be provided by the Authority (collectively the "Bidding Documents"). The Bidding Documents for the Project will be provided to Bidders that qualify RFQ process for the Project. Bidders can participate in the bidding process for one or more of the other projects comprising the Project Group (i.e. the projects at Azamgarh, Banda and Safai) as well as a single Project. In the event the Bidder submits bids for multiple projects that are part of the Project Group, they will be required to indicate their preference/priority amongst the projects comprising the Project Group for which they have submitted their Bids at the RFP Stage. Based on the evaluation methodology of the RFP, a bidder will be declared as the "Preferred Bidder". The number of projects comprising the Project Group for which the Authority will sign the Concession Agreement with the Preferred Bidder will depend on the financial capability of the Bidder. The financial capability required of a Bidder increases with the number of Projects comprising the Project Group that the Bidder submitted a bid.

10.2. Project Structure

There are various type of PPP structures depending on the ownership arrangements and allocations of risk between the private and public partners. The Different PPP modes can be compared on a spectrum ranging between low and high levels of private investment and involvement. The four major "families" of PPP modes are:

- Management contracts
- Lease contracts
- Concessions
- Build-operate-transfer (BOT) and its variants

Management contracts

They are the simplest of the PPP modes and often cover the shortest period (3-5 years). The private partner takes responsibility for managing specified aspects of the service provision. Ownership and investment typically remains with the public sector, although some rehabilitation responsibilities can be transferred to the private partner.

Lease Contract

Lease contracts are usually of medium term length, and may involve capital investment by the private partner. The private partner creates the asset and leases it to the Government. Examples of lease contracts include Build, Lease and Transfer, Build, Operate, Lease and Transfer, etc.

Concession Contract

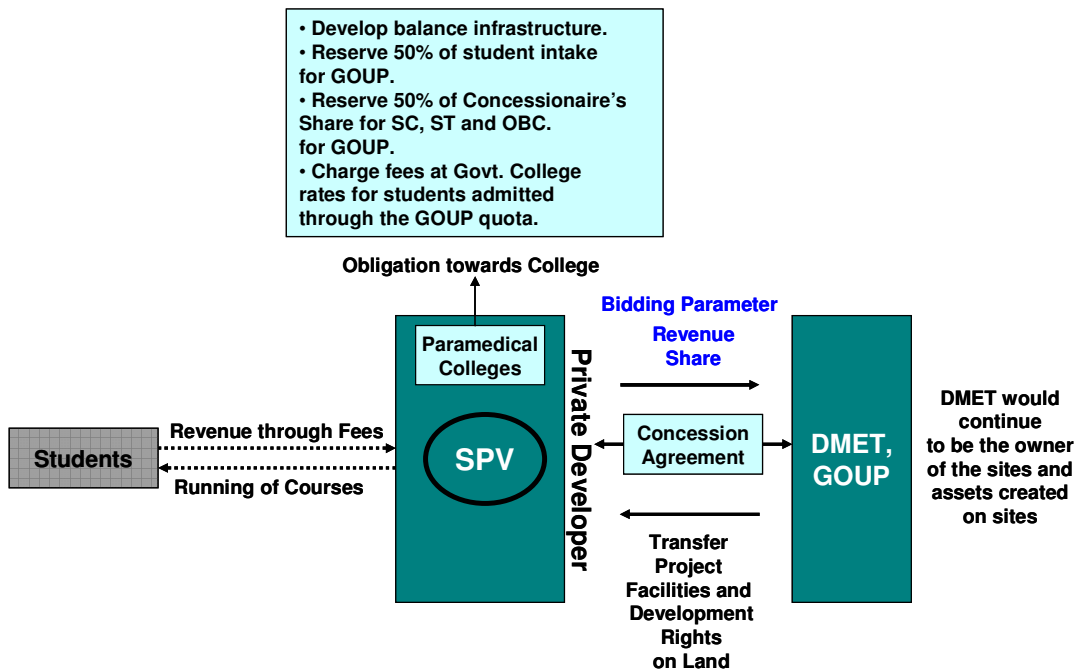
In a concession contracts the public sector grants the private partner the right to manage and operate existing assets (Brownfield) and responsibility for making new investment (extensions or rehabilitation). Ownership typically remains with the government.

Build-Operate-Transfer (BOT)

Build-operate-transfer (BOT) are the most complex of the PPP arrangements, involving the greatest level of private sector participation across a set of different functions, and often covering a long period of time. They typically relate to Greenfield asset developments. Risk allocation to the private sector may be significant, including volume and finance risk, and potentially price risk. A number of BOT variants are possible depending on the allocation of roles and risk. These include DBO, DBFOOT, BOOT, DBOOT, BOO.

GOUP will adopt the BOT structure to construct and operate the projects. The Project Structure has been provided below.

Exhibit 3: Project Structure



As depicted in the above diagram, GOUP will enter into a Concession Agreement with the SPV incorporated by the preferred Bidder, selected through the competitive bid process. The Bidder offering the highest revenue share to GOUP in the Project will be identified as the preferred bidder (referred hereafter as Concessionaire).

GOUP would transfer the land and assets on “as is where is” basis to the SPV and thereafter grant concession to the SPV to undertake the balance construction and operation and management of the Paramedical College. In turn the SPV will be required to offer 11% equity share in the project to GOUP.

The Concessionaire will then have to complete the balance construction and operate and maintain the Project for a period of fifty (50) years. The Concessionaire would need to obtain University Affiliation and the necessary approvals for starting and operating the college from other regulatory bodies.

The Concessionaire would be required to recruit/ depute teaching and other staffs required as per the MCI norms. He will reserve 50 percent of the seats for GOUP for which he would be allowed to charge fees at Government College rates for students admitted through the GOUP quota. The fees for all the students admitted in the college (i.e. students admitted through the GOUP or management quota) will be based on DMET guidelines.

On completion of the Concession Period the Concessionaire would be required to transfer the project facilities and licenses back to GOUP.

11. ANNEXURE

11.1. Fees Comparative of Private Medical Colleges in UP State

	GOVT. MEDICAL COLLEGES	ERA MEDICAL COLLEGES	HIND INST. OF MEDICAL SCIENCE	MUZAFFARNAGAR MEDICAL COLLEGE	NETAJI SUBHASH CHANDRA BOSE SUBHARTI MEDICAL COLLEGE	RAMA MEDICAL COLLEGE KANPUR	ROHILKHAND MEDICAL COLLEGE & HOSP.	SARASWATI INST. OF MEDICAL SCIENCE HAPUR	SRI RAM MURTI SMARAK INST. OF MEDICAL SCIENCE	SHARDA MEDICAL COLLEGE
Management Type	Govt.	Private	Private	Private	Private	Private		Private		Private
Location		Lucknow	Lucknow	Muzaffarnagar	Meerut	Kanpur	Bareilly	Hapur	Bareilly	Noida
Fees per annum		24%								
Tuition Fees	2005	342000								
Tuition Fees	9000 (50% for SC/ST/OBC candidates)	425,000	425,000	435,000	410,000	450,000	426,000	410,000	432,000	
Other Fees	2,000			10,000				10,000		
Development Fees	1,000									
Hostel & Mess		75,000	75,000	85,000		75,000	60,000	65,000	55,000	
Single Bedded	1800 to 2400			85,000						
Double Bedded	1,200			65,000	55,000					
Triple & More Bedded	600									
Electricity Charges	3,000			Incl.						

Detailed Public Private Partnership Framework- Safai (Etawah) Paramedical College

	GOVT. MEDICAL COLLEGES	ERA MEDICAL COLLEGES	HIND INST. OF MEDICAL SCIENCE	MUZAFFARNAGAR MEDICAL COLLEGE	NETAJI SUBHASH CHANDRA BOSE SUBHARTI MEDICAL COLLEGE	RAMA MEDICAL COLLEGE KANPUR	ROHILKHAND MEDICAL COLLEGE & HOSP.	SARASWATI INST. OF MEDICAL SCIENCE HAPUR	SRI RAM MURTI SMARAK INST. OF MEDICAL SCIENCE	SHARDA MEDICAL COLLEGE
Onetime fee										
Admission/Registration Fees	5,000	20,000	20,000	5,000		10,000		5,000		
Security (Refundable)	5,000	100,000	100,000	100,000	200,000	150,000	150,000	150,000	125,000	
Security (Refundable)-Hostel				25,000	25,000					
Bank Guarantee					1,400,000					

11.2. Normalised Score of the Districts of UP

NAME OF THE DISTRICT	POPULATION 2001	DECADAL GROWTH RATE	POPULATION 2016	PER CAPITA INCOME	TOTAL NO. OF BEDS IN PUBLIC & PVT. ALLOPATHIC HOSPITALS/DISPENSARIES PER LAKH POPULATION	NEED GAP - HC (NO. OF BEDS REQUIRED PER LAKH POP.)	NORMALISED PER CAPITA INCOME	NORMALISED BEDS
GAUTAM BUDDHA NAGAR	1191263	35.70	1724239	0	37.46	292.54	0	0.88
SAHARANPUR	2,848,152	23.35	3,606,855	21290	61.0	269.0	0.87	0.82
JHANSI	1,746,715	23.23	2,196,209	19250	195.6	134.4	0.79	0.41
JALAUN	1,455,859	19.39	1,686,147	16989	65.9	264.1	0.70	0.80
KANNAUJ	1,385,227	19.58	1,617,634	15920	53.9	276.1	0.65	0.84
ETAWAH	1,340,031	21.59	1,666,773	14420	55.7	274.3	0.59	0.83
BANDA	1,500,253	18.49	1,831,475	12435	62.4	267.6	0.51	0.81
AZAMGARH	3,950,808	26.28	5,220,367	8900	53.2	276.8	0.36	0.84
LUCKNOW	3,681,416	33.25	5,107,497	24419	220.4	109.6	1.00	0.33
BAGHPAT	1,164,388	13.00	1,268,772	24009	32.4	297.6	0.98	0.90
MEERUT	3,001,636	24.16	3,835,341	23889	160.5	169.5	0.98	0.51
GHAZIABAD	3,289,540	47.47	5,401,158	23227	36.4	293.6	0.95	0.89
HATHRAS	1,333,372	18.32	1,573,799	22629	32.8	297.2	0.93	0.90
BULANDSHAHR	2,923,290	22.22	3,813,792	21976	57.5	272.5	0.90	0.83
KANPUR NAGAR	4,137,489	27.17	5,561,196	21699	212.7	117.3	0.89	0.36
JYOTIBA PHULENAGAR	1,499,193	29.72	2,072,341	21489	30.1	299.9	0.88	0.91
MUZAFFARNAGAR	3,541,952	24.61	4,529,269	20409	40.1	289.9	0.84	0.88
MATHURA	2,069,578	26.95	2,826,855	19870	145.1	184.9	0.81	0.56

NAME OF THE DISTRICT	POPULATION 2001	DECADAL GROWTH RATE	POPULATION 2016	PER CAPITA INCOME	TOTAL NO. OF BEDS IN PUBLIC & PVT. ALLOPATHIC HOSPITALS/DISPENSARIES PER LAKH POPULATION	NEED GAP - HC (NO. OF BEDS REQUIRED PER LAKH POP.)	NORMALISED PER CAPITA INCOME	NORMALISED BEDS
SONBHADRA	1,463,468	36.13	2,127,802	19214	44.8	285.2	0.79	0.86
AGRA	3,611,301	31.27	5,051,592	18799	158.2	171.8	0.77	0.52
BIJNOR	3,130,586	27.16	4,158,850	18540	44.4	285.6	0.76	0.87
ALIGARH	2,990,388	22.08	3,749,900	17243	168.3	161.7	0.71	0.49
MAHOBA	708,831	21.80	869,276	17115	45.2	284.8	0.70	0.86
BAREILLY	3,598,701	26.96	4,873,512	17005	72.2	257.8	0.70	0.78
MORADABAD	3,749,630	26.45	4,883,475	16916	53.5	276.5	0.69	0.84
PILIBHIT	1,643,788	28.11	2,226,813	16838	72.2	257.8	0.69	0.78
LALITPUR	977,447	29.98	1,343,489	16794	92.2	237.8	0.69	0.72
RAMPUR	1,922,450	27.98	2,595,361	15979	29.7	300.3	0.65	0.91
FIROZABAD	2,045,737	33.44	3,077,712	15891	46.0	284.0	0.65	0.86
BUDAUN	3,069,245	25.36	4,032,268	15576	51.5	278.5	0.64	0.84
HAMIRPUR	1,042,374	17.85	1,195,242	14991	68.4	261.6	0.61	0.79
SHAHJAHANPUR	2,549,458	28.28	3,442,489	14857	3.8	326.2	0.61	0.99
ALLAHABAD	4,941,510	26.72	6,395,295	14805	123.8	206.2	0.61	0.62
ETAH	2,788,270	24.20	3,593,144	14672	50.0	280.0	0.60	0.85
FARRUKHABAD	1,577,237	22.80	1,949,218	14666	90.7	239.3	0.60	0.73
KHERI	3,200,137	32.28	4,715,488	14466	43.8	286.2	0.59	0.87
MAINPURI	1,592,875	21.50	1,948,731	14393	56.5	273.5	0.59	0.83
BARA BANKI	2,673,394	26.40	3,487,025	14117	41.9	288.1	0.58	0.87
AURAIYA	1,179,496	14.70	1,324,565	13758	13.7	316.3	0.56	0.96

NAME OF THE DISTRICT	POPULATION 2001	DECADAL GROWTH RATE	POPULATION 2016	PER CAPITA INCOME	TOTAL NO. OF BEDS IN PUBLIC & PVT. ALLOPATHIC HOSPITALS/DISPENSARIES PER LAKH POPULATION	NEED GAP - HC (NO. OF BEDS REQUIRED PER LAKH POP.)	NORMALISED PER CAPITA INCOME	NORMALISED BEDS
UNNAO	2,700,426	22.72	3,412,364	13214	38.0	292.0	0.54	0.88
VARANASI	3,147,927	25.51	3,979,681	13037	235.1	94.9	0.53	0.29
KANPUR DEHAT	1,584,037	21.55	1,966,638	12810	47.1	282.9	0.52	0.86
CHANDAULI	1,639,777	28.63	2,242,232	12795	38.1	291.9	0.52	0.88
SITAPUR	3,616,510	26.58	4,796,376	12767	111.6	218.4	0.52	0.66
KAUSHAMBI	1,294,937	26.73	1,727,992	12065	40.5	289.5	0.49	0.88
GORAKHPUR	3,784,720	23.44	4,720,679	11727	158.2	171.8	0.48	0.52
HARDOI	3,397,414	23.67	4,312,716	11279	3.8	326.2	0.46	0.99
SULTANPUR	3,190,926	24.20	4,104,860	11169	67.8	262.2	0.46	0.79
FAIZABAD	2,087,914	23.87	2,676,951	11032	59.9	270.1	0.45	0.82
FATEHPUR	2,305,847	21.40	2,852,486	10869	37.8	292.2	0.45	0.89
MIRZAPUR	2,114,852	27.62	2,776,070	10722	69.0	261.0	0.44	0.79
SANT RAVIDAS NAGAR BHADOHI	1,352,056	25.47	1,645,218	10664	26.1	303.9	0.44	0.92
BALRAMPUR	1,684,567	23.08	2,099,346	10389	58.6	271.4	0.43	0.82
MAU	1,849,294	27.91	2,485,347	10105	29.0	301.0	0.41	0.91
RAE BARELI	2,872,204	23.66	3,671,063	10061	66.2	263.8	0.41	0.80
GHAZIPUR	3,049,337	26.18	4,002,495	9680	46.6	283.4	0.40	0.86
BALLIA	2,752,412	21.67	3,441,600	9542	54.6	275.4	0.39	0.83
BASTI	2,068,922	22.69	2,617,843	9405	93.2	236.8	0.39	0.72
MAHARAJGANJ	2,167,041	29.27	3,026,067	9257	33.7	296.3	0.38	0.90

NAME OF THE DISTRICT	POPULATION 2001	DECADAL GROWTH RATE	POPULATION 2016	PER CAPITA INCOME	TOTAL NO. OF BEDS IN PUBLIC & PVT. ALLOPATHIC HOSPITALS/DISPENSARIES PER LAKH POPULATION	NEED GAP - HC (NO. OF BEDS REQUIRED PER LAKH POP.)	NORMALISED PER CAPITA INCOME	NORMALISED BEDS
SIDDHARTHANAGAR	2,038,598	26.78	2,755,770	9170	34.2	295.8	0.38	0.90
GONDA	2,765,754	25.46	3,555,690	9100	56.3	273.7	0.37	0.83
AMBEDAKER NAGAR	2,025,373	24.31	2,591,372	9007	42.3	287.7	0.37	0.87
KUSHINAGAR	2,891,933	28.17	3,881,739	8988	18.0	312.0	0.37	0.95
BAHRAICH	2,384,239	29.55	3,336,138	8918	58.7	271.3	0.37	0.82
JAUNPUR	3,911,305	21.67	4,874,633	8715	44.3	285.7	0.36	0.87
CHITRAKOOT	800,592	34.33	1,202,627	8226	49.5	280.5	0.34	0.85
SANT KABIR NAGAR	1,424,500	23.64	1,781,221	8185	24.6	305.4	0.34	0.93
DEORIA	2,730,376	25.03	3,525,787	8022	73.3	256.7	0.33	0.78
PRATAPGARH	2,727,156	23.36	3,489,358	7917	70.5	259.5	0.32	0.79
SHRAWASTI	1,175,428	27.30	1,602,106	5456	21.4	308.6	0.22	0.94

Source: UP Planning Atlas 2008 and Population projections 2011-16- UNFPA Report

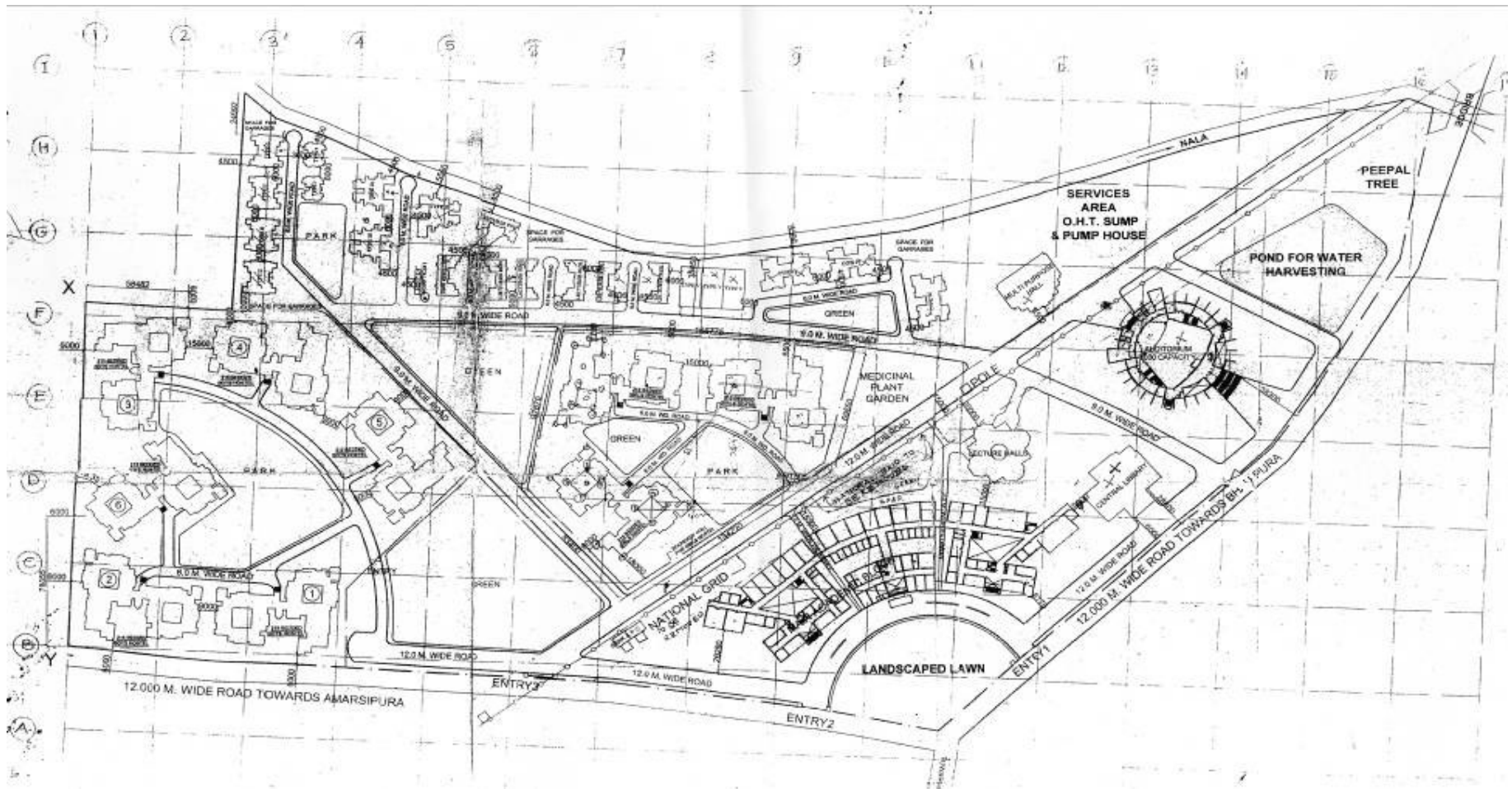
11.3. Productivity of UP RIMS, Safai

SERVICES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	AVG./ MONTH	AVG./ DAY
OPD attendance	25910	26535	30565	25883	29830	36863	37693	35555	34843	27787	23685	27284	362433	30203	1006.8
Casualty attendance	1787	1374	2023	2295	2703	2972	3240	3590	3569	2948	2211	2584	31296	2608	86.9
IP admission	1937	1907	2122	1966	2299	2489	2813	2750	2963	2629	2284	2259	28418	2368	78.9
MLC	61	50	104	76	144	110	117	101	108	109	52	71	1103	92	3.1
Death	99	105	150	141	139	149	174	171	188	200	155	157	1828	152	5.1
Major Surgery	409	375	388	415	364	367	469	385	403	404	445	466	4890	408	13.6
Minor Surgery	260	350	462	440	581	517	506	468	536	559	484	461	5624	469	15.6
Lithotripsy	13	3	3	3	1	0	7	3	3	1	0	0	37	3	0.1
Normal deliveries	241	221	204	185	231	308	427	447	436	333	334	293	3660	305	10.2
Caesarian section	54	55	76	60	72	57	87	96	93	87	90	72	899	75	2.5
X-ray plain	1495	2284	2907	2453	3051	3286	3414	2935	2767	2642	2486	2780	32500	2708	90.3
X-ray special	3	29	39	25	25	55	44	46	60	43	55	55	476	43	1.4
X-ray OT	31	34	21	43	49	42	22	3	0	0	0	0	245	35	1.2
USG	653	844	994	890	1033	1271	1340	1257	1325	1115	1055	1136	12913	1076	35.9
CT Scan		114	176	173	218	238	260	231	277	346	309	332	2674	243	8.1
MRI		19	36	22	28	32	32	46	38	41	33	24	351	32	1.1
Mammography		1	5	1	2	8	4	3	6	3	4	5	42	4	0.1
ECG	263	456	558	381	440	560	492	456	513	429	444	502	5494	458	15.3
TMT	1	1	4	2	2	6	2	1	2	0	1	3	25	2	0.1
Biochemistry	3231	9267	10433	9542	10862	12934	10928	11381	12183	11484	9840	10912	122997	10250	341.7
Hematology	4456	5495	10862	7072	7865	8953	8538	9159	8462	7557	6684	6730	91833	7653	255.1
Histopathology	46	57	54	47	59	70	107	91	102	82	109	104	928	77	2.6
FNAC	76	96	130	90	138	171	132	99	75	53	76	89	1225	102	3.4

Detailed Public Private Partnership Framework- Safai (Etawah) Paramedical College

SERVICES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	AVG./ MONTH	AVG./ DAY
Clinical Pathology		779	365	219	884	1277	1296	1338	1273	1048	1012	1172	10663	969	32.3
Microbiology		567	180	245	245	312	286	302	302	321	256	217	3233	294	9.8
Serology		1029	2333	1835	2299	2809	2696	3462	1965	2686	2209	1923	25246	2295	76.5
Parasitology		246	338	295	394	541	468	569	1669	438	260	210	5428	493	16.4
PFT	33	32	41	22	30	39	36	23	28	39	20	55	398	33	1.1
Blood Bank- issue	197	229	289	261	289	292	322	328	343	296	291	236	3373	281	9.4
withdrawal	266	280	284	244	275	306	329	330	345	372	279	255	3565	297	9.9
Physiotherapy	697	875	923	839	773	952	889	766	637	659	566	546	9122	760	25.3
Dental X-ray	145	160	223	250	254	253	218	206	206	196	165	152	2428	202	6.7
Dental X-ray (OPG)	27	28	35	41	50	45	39	46	43	47	48	64	513	43	1.4
Dental procedure	159	108	110	262	106	214	274	176	242	253	274	263	2441	203	6.8
Haemodialysis		3	29	27	22	24	45	30	41	41	58	62	382	35	1.2
EMG/NCV	6	9	14	9	12	5	5	5	2	12	16	5	100	8	0.3
EEG	23	18	29	22	17	31	32	25	22	42	26	46	333	28	0.9
Audiometry	59	165	112	108	104	83	174	221	166	173	186	228	1779	148	4.9
Speech Therapy	82	75	75	70	78	47	91	56	63	46	41	48	772	64	2.1
Immunization	471	386	475	405	462	541	70	616	636	506	555	549	5672	473	15.8
Dog bite	47	16	43	30	11	28	13	4	8	0	5	13	218	18	0.6
BOR @ 500(authorized) %	88	96	92	96	100	107	110	105	102	93	95	90	1174	98	3.3
BOR @ 643 (deployed) %	68	74	71	75	78	83	85	81	79	72	74	70	910	76	2.5

11.4. Site Master Plan



Source: UPRNNL Site Plans

11.5. Site Project Progress Report

PARTICULARS	PROGRESS (IN %)	DETAILS	COMMENTS
Academic Block	85	Provision for Lecture hall, laboratory, professor's room, examination room etc in left, right and central wing of the academic block (each of four floors)	Flooring of various laboratories of eight departments of the Paramedical College is pending due to lack of Floor plans. Final painting coat, water and sanitary supplies fittings in toilet to be done at the time of handover
Administrative block	93	Provision for the offices of Director, Principal, clerical staff and pantry on the two floors	Final painting coat, water and sanitary supplies fittings in toilet to be done at the time of handover
Lecture & Examination theatre	80	One floored structure. Two large and four small lecture halls	Windows, doors and other pending work is in progress
Allied block		Work not started	Work not started
Boys Hostel			
2 blocks each with capacity of 215 beds (total = 430)	70	Each hostel is a 215 bedded facility with visitor room, dining room & kitchen.	Finishing work with painting, window & doors fittings in progress
4 blocks each with capacity of 215 beds (total = 860)	70	Each hostel is a 215 bedded facility with visitor room, dining room & kitchen.	Structural work of both the block is finished
			The Third slab structure and ground structure of one of the blocks is complete
			Finishing work of the second block is in progress.
Girl's hostels. 3 blocks each with capacity of 215 beds	70	Each hostel is a 215 bedded facility with visitor room, dining room & kitchen.	Block 1 - Structure finished, finishing work in progress
			Block 2 - Three floors complete, finishing work in progress
			Block 3 - Three floors complete
Residential Block			
Grade 1 - 32 Houses	95	Two blocks of four floors. Each with 16 houses	Ceiling work of all four floors of both the blocks finished. Finishing work in progress

PARTICULARS	PROGRESS (IN %)	DETAILS	COMMENTS
Grade 2 - 48 Houses	95	Three blocks of four floors. Each with 16 houses	Ceiling work of four floors finished. Finishing work in progress
Grade 2 - - 6 Houses		Work not started	Work not started
Grade 3 - 24 Houses	95	One block of four floors with 16 houses. One block of two floors with 8 houses	Ceiling work of both the blocks finished. Finishing work in progress
External development work	60	One overhead tank (250 Kilolitres). One underground tank (650 Kiloliters). Two tube wells. One sewage treatment plant. Road sewers, drain, distribution line for excess water, rainwater harvesting, plantation and boundary wall	Construction of two tube wells finished. Overhead tank - 100% finished. Boundary wall 1300 meters complete, road and soil filling work in progress, water distribution work in progress, underground tank 650 kiloliters - 100 % finished. Rainwater harvesting work in progress.