



# **Directorate General of Medical Education and Training, Uttar Pradesh**

**Investment Assessment Report 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:

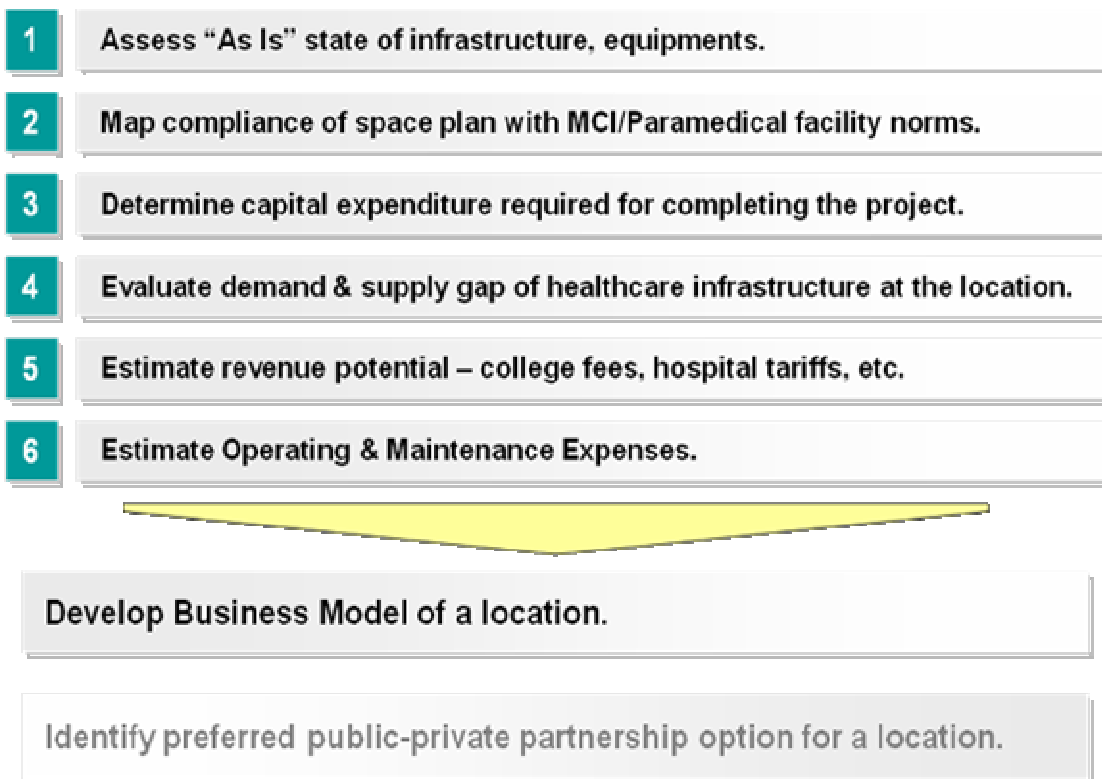
1. Take-over the facilities on as 'as-is where is' basis and complete the balance construction.
2. Obtain the necessary licenses/regulatory approvals required for starting and operating the College.

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**

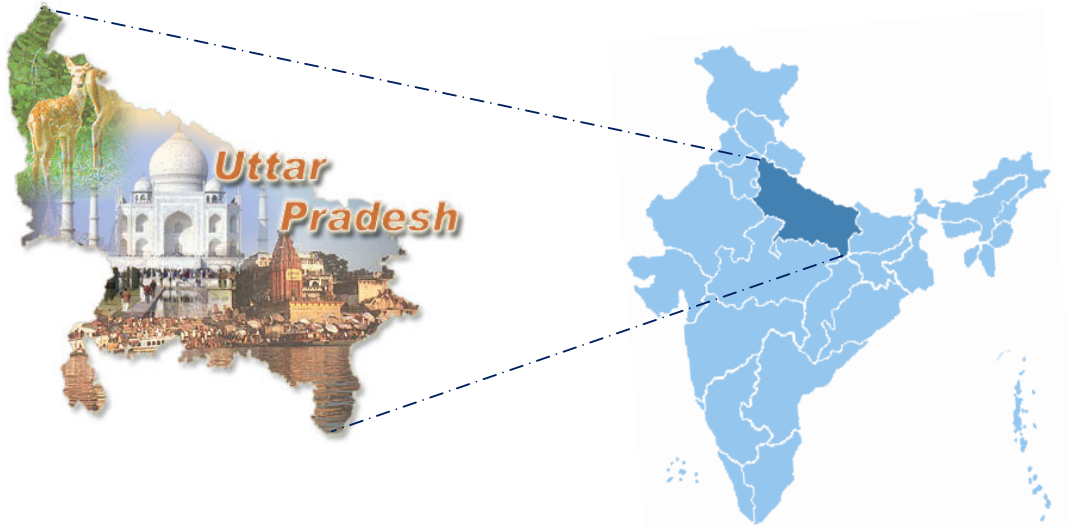
Based on above assessments, a financial model was prepared to assess the investment for the alternative scenarios. The model inputs were estimated in the following manner:

- 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 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  $23^{\circ} 52'N$  and  $31^{\circ} 28' N$  latitudes and  $77^{\circ} 3'$  and  $84^{\circ} 39'E$  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.

### 4.1. 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.

### 4.2. 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.

### 4.3. 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

#### 4.1. 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	

## 4.2. 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	<b>M.B.B.S.</b>	10	11	1062	1000	2062
2	<b>Dental</b>	3	27	130	2650	2780
3	<b>Nursing</b>					
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	<b>Paramedical*</b>					
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

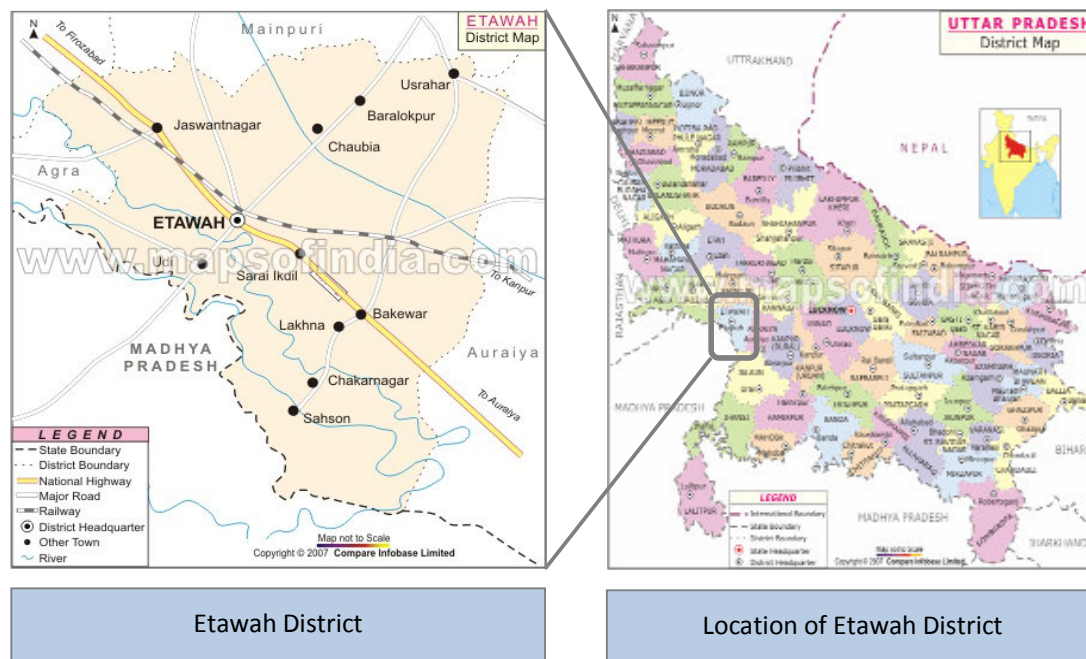
Source: DMET and HOSMAC

# Includes Recognized and Permanent Colleges

\* Diploma Course

## 5. OVERVIEW OF SAFAI (ETAWAH)

### 5.1. 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.

### 5.2. 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%

### 5.3. 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.

### 5.4. 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

## 5.5. 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

## **5.6. 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.

## 6. PROJECT OVERVIEW

### 6.1. 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 completed within 6-8 months and college shall be operational for admission in the academic year 2011-2012.

## 6.2. 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: UPRNLL & Project Site Plans*

## 6.3. 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

## 6.4. 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.

## 7. 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.

### 7.1. Project Cost Assumptions

#### 7.1.1. 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
<b>Total Base Cost</b>	<b>17,710</b>	<b>12,879</b>	<b>4,861</b>	<b>17,740</b>

Source: UPRNNL and Hosmac

COP – Cost of Project

#### 7.1.2. 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.

### 7.1.3. 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.

## 7.2. Project Financing Assumptions

### 7.2.1. Means of Finance

The balance project cost would be funded by equity.

## 7.3. Income from College

### 7.3.1. 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
<b>TOTAL</b>		<b>450</b>

*Source: DMET, Project DPR and Hosmac*

### 7.3.2. 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

### 7.3.3. 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

### 7.3.4. 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 5<sup>th</sup> 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
<b>Total Seats</b>	<b>450</b>	<b>310</b>	<b>345</b>	<b>380</b>	<b>415</b>	<b>450</b>

### 7.3.5. 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

## 7.4. Operating Expenses

### 7.4.1. 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
<b>College Faculty</b>	
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
<b>Total</b>	<b>213.00</b>

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%
<b>Total Staff Required</b>	<b>149</b>	<b>170</b>	<b>213</b>	<b>213</b>	<b>213</b>
% Capacity Utilization	70%	80%	100%	100%	100%

Source: INC, AICTE, UPSMFAC and Hosmac

#### 7.4.2. 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
<b>Administration - College</b>			
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
<b>College Faculty</b>			
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
<b>Total</b>	<b>213.00</b>		<b>37,260,000</b>
Add : Margin for Bonus & Welfare --- -->	%	15%	5,589,000
<b>TOTAL Salary Exp.</b>			<b>42,849,000</b>

Source: Hosmac

#### 7.4.3. 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

#### 7.4.4. 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*

#### **7.4.5. 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.

#### **7.4.6. 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%

#### **7.5. Income Tax Rate**

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

#### **7.6. Inflation Factor**

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

#### **7.7. 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.

## 8. 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.

### 8.1. 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
<b>INCOME</b>						
Total Academic Income	125	888	1,447	2,357	3,839	6,253
Misc. Income	92	207	337	549	895	1,458
<b>Total Revenue</b>	<b>217</b>	<b>1,095</b>	<b>1,784</b>	<b>2,908</b>	<b>4,734</b>	<b>7,711</b>
<b>EXPENSES</b>						
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	-	-	-	-	-	-
<b>Total Expenses</b>	<b>400</b>	<b>803</b>	<b>1,274</b>	<b>2,050</b>	<b>3,334</b>	<b>5,428</b>
<b>PBIDT (A-B)</b>	<b>(183)</b>	<b>293</b>	<b>510</b>	<b>856</b>	<b>1,400</b>	<b>2,283</b>
Interest on TL	-	-	-	-	-	-
Depreciation	752	549	819	991	724	1,179
<b>PBT</b>	<b>(935)</b>	<b>(257)</b>	<b>(309)</b>	<b>(134)</b>	<b>710</b>	<b>1,104</b>
Cumulative	(935)	(5,467)	(8,354)	(10,859)	(5,385)	(3,561)
Less: Tax	-	-	-	-	135	388

<b>PAT</b>	<b>(935)</b>	<b>(257)</b>	<b>(309)</b>	<b>(134)</b>	<b>(541)</b>	<b>717</b>
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Source: Hosmac and CRIS Analysis

## 8.2. 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 5<sup>th</sup> 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 30<sup>th</sup> year.

### **Internal Rate of Return**

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