

### MGNCRE

## महात्मा गांधी राष्ट्रीय ग्रामीण शिक्षा परिपद Mahatma Gandhi National Council of Rural Education





Sustainability Index and Green Audit of Higher Education Institutions

Please fill as per the requirements and availability of information seeking the Institution officials.

Fill this proforma and submit the scan copy of filled in proforma to mgncre2022@gmail.com

Institution/College Name: SHRLLP ARTS AND SCIENCE COLLEGE

District:BHARUCH

Mobile WhatsApp no: 9429291280

Affiliated to: VNSGU - SURAT (GUJARAT)

State: GUJARAT

E-mail:jayendrapuricollege@yahoo.in

Name of the Head of the Institution: DR. N. M. PATEL

Designation: PRINCIPAL

Mobile WhatsApp no: 9428106650

AISHE Code: C- 616

E-mail:pnitin61@gmail.com

### Part A

Total number of Faculty members: 50 Total number of non-teaching staff: 08

Total number of students: 2834

Is your institution women's college or co-education? : Co-education

Is there hostel facility: Yes

Total number of students residing in the hostels: 29

#### Part B

## BASELINE SUSTAINABILITY INDEX ACTIVITY TO BE DONE FOR SENDING THE APPLICATION

MGNCRE Sustainability Index Proforma

Ministry of Education Government of India Department of Higher Education MGNCRE

Can be filled by the Head of the Institution/Faculty Member/IQAC team

\*Required (Simple calculations are required rounded to accuracy)

1	WAT	ERM	IANA	GEM	ENT
---	-----	-----	------	-----	-----

UsageofWater(liter/day)inyourinstitution?\_\_\_\_
HINT:ToensureUsageofwaterthefollowingestimationneedstobeconsideredbythe

HigherEducationInstitutions:i.(No.ofDayscholars+ faculty+staff)X(30liters)+(No.ofhostellersX100liters)=

86,310 Ltr.



PRINCIPAL
SHRI JAYENDRAPURI ARTS &
SCIENCE COLLEGE, BHARUCH.

## MGNCRE Sustainability Index Proforma

Livery Georgia Forms dimins the most compiled greater rest.

To cavendrapour office should be

Date: Thursday 22 December 2022 of M.40 pm IST

# Thanks for filling out MGNCRE Sustainability Index Proforma

Here's what was received.

# MGNCRE Sustainability Index Proforma

Ministry of Education Covernment of India Department of Higher Education MGNCRS Can be filled by the Head of the Institution/Faculty Member/ QAC team regnere2022@gmail.com LM-21 09 2022 JS\$

Email '

jayendrapuricollege@yahno.in

Mahatma Gandhi National Council of Rurat Education



# महात्मा गांधी राष्ट्रीय ग्रामीण शिक्षा परिषद

Mahatma Gandhi National Council of Rural Education

(formerly Mational Council of Roral Institutes)

Department of Higher Education, Ministry of Education, Government of India



Name of the Institution \*



Address of the Institution *
OLD NATIONAL HIGH WAY, BHARUCH (GUJARAT) BHARAT.
Affiliated to *
VNSGU - SURAT, GUJARAT.
Institution's District *
BHARUCH
State *
GUJAPA/1
Name of the Principal/Head of Institution *
DR.NITIN M. PATEL (PRINCIPAL)
Contact Number (WhatsApp Number) of the Principal/ Head of the Institution *
9428106660
Email of the Principal/ Head of the Institution *

C

pnitin61@gmail.com

Whic	ch of the following Cells are formed under MGNCRE by your institute? *
	MGNCRE SESREC (Social Entrepreneurship Sustainability and Rural Engagement Cell)
	MGNORE REDC (Rural Entrepreneurship Development Cell)
	MGNCRE VENTEL (Vocational Education Nai Talim and Experiential Learning Cell)
	Yet to be formed
	to be formed, the following proformas can be DOWNLOADED for Formation GNCRE Cells by your Institute as follows
	ICRE SESREC (Social Entrepreneurship Swachhta and Rural Engagement - Can be formed by Higher Educational Institution offering Social Work Course
	ICRE REDC (Rural Entrepreneurship Development Cell) - Can be formed by //MBA/Management courses offering institution
	ICRE VENTEL (Vocational Education Nat Talim and Experiential Learning - Can be formed by B.Ed/M.ED/Education Courses offering Institutions
	se fill the details in downtoaded proforms and submit the scan copy of filled in rma to mgnere2022@gmai.com
<b>(9)</b>	MGNCRE SESREC - Click this Link and Download Proforma https://docs.google.com/document/d/1vv/Cf1YAPH8r0Warh7HDr4KiY8z7pEAM/edit?usp=sharing&ouid=109978684647981418772&rtpof=true&sd=true
0	MGNCRE REDC - Click this Link and Download Proforms https://docs.google.com/document/d/1GuElYvKCF3_BS0wnDgNk887rjDR27s9Y/edit? usp=sharing&ouid=109978684647981418772&rtpof=true≻=true
0	MGNCRE VENTEL - Click this Link and Download Proforma https://docs.google.com/document/d/1C16kZlv-ZGay_yHAKERLdhAQcb2yjosQ/edit? usp=sharing&ould=109978684647981418772&rtpof=true&sd=true

Did your institution submit Sustainability Index Proforma in 2022? \*



Wh	ich of the following Colls are formed under MGNCRE by your institute? *
	MGNCRE SESREC (Social Entrepronourable Sustainability and Rural Engagement Cell).
	MGNORE REDC (Rund Entreproneuranta Development Cell)
	MGNCRE VENTEL (Vocot ona' Education Nat Takin and Experionital Learning Cell)
	Yet to be formed
If ye	et to be formed, the following proformas can be DOWNLOADED for Formation IGNORE Cells by your Institute as follows
	NCRE SESREC (Social Entrepreneurship Swachhta and Rural Engagement ) - Can be formed by Higher Educational Institution offering Social Work Course
	NCRE REDC (Rural Entrepreneurship Development Cell) - Can be formed by VMBA/Management courses offering institution
MGI Cell	NCRE VENTEL (Vocational Education Nat Talim and Experiential Learning ) - Can be formed by B.Ed/M.ED/Education Courses offering Institutions
	se fill the details in downloaded proforma and submit the scan copy of filled in orma to mgnore2022@gmai.com
(9)	MGNCRE SESREC - Click this Link and Download Proforma https://docs.google.com/document/d/1vviCf1YAPH8r0Warh7HDr4KiY8z7pEAM/edit? usp=snaring&ouid=109978684647981418772&rtpcf=true&sd=true
0	MGNCRE REDC - Click this Link and Download Proforma https://docs.google.com/document/d/1GuE/YvKCF3_BS0wnDgNk887rjDR27s9Y/edit? usp=sharing&ouid=109978684647981418772&rtpof=true&sd=true
0	MGNCRF VENTEL - Click this t, nk and Download Proforma https://docs.google.com/document/d/1C16kZlv-ZGay_yHAKERLdhAQcb2yjcsQ/edit?usp=sharing&ouid=1C9978684647981418772&rtpof=true&sd=true
Did y	our institution submit Sustainability Index Proforma in 2022? *

Yes

0	Yel to be submitted
1, P (Fo: 2 F	t to be submitted. Please follow the below steps: lease click, download and take print out of the Sustainability Index proforma. Hard Copy purpose) If the details in hard copy as per the proforma. If the same details using this google form and submit.
•	MGNCRE Sustainability Index Proforma - Click and Download https://docs.google.com/document/d/12qfCxp-msObtYh_fuXZCSYq3KR9AMfca/edit?usp=sharing&ouid=109978684647981418772&rtpof=true&sd=true
WAT	TER MANAGEMENT
1) cons	Usage of Water (liter / day)in your institution?  HINT: To ensure Usage of water the following quantification needs to be sidered by the Higher Education Institutions: i. (No. of Day scholars+ faculty+  (X (30 liters) + (No. of hostellers X 100 liters) = *
86.3	10 liter

EXAMPLE Usage of water by us



To ensure Usage of water in the institution the following quantification	
needs to be considered by the Higher Education Institutions:	
(No. of day scholars+faculty+ staff) X (30 litres) + (No. of hostellers X 100 lit	resi

Example 1:

Total number of day scholar students 1200
Total number of Faculty 45
Total number of Staff 15
Usage of water in the institution= (1200+45+15) × 30 litres
= (1260) × 30 litres
= 37800 litres
(No Hostel)

Example 2:
Total number of day scholar students 2100
Total number of Faculty 50
Total number of Staff 25
Usage of water in the institution= (2100+50+25) X 30 litres = (2175) X 30 litres = 65250 litres
Total number of students in hostels 700
So, 700 X 100 litres= 70,000 litres

Total Usage of water in the institution is 65250+70000 = 1,35,250 litres

2)	Water Availability for usage (liter / day)?	( HINT: Please
	erve the above response for water usage and comm	
refei	rence to the present situation of the institution's loca	ation and sources of water)
97,50	30 filer/day.	

EXAMPLE Water Availability for usage (liter / day)? Examples



Water Availability for usage (liter / day)?
Consider number of water tanks available on the campus,
tank capacity and number of times the tanks are filled per day.

## Example 1:

Total number of 10,000 litre tanks available = 4 Number of times the tanks are filled per day = 2 times So, water made available is 10000 X 4 X 2= 80000 litres

## Example 2:

Total number of 10,000 litre tanks available = 2

Total number of 5000 litre tanks available = 3

Number of times the tanks are filled per day = 1 time

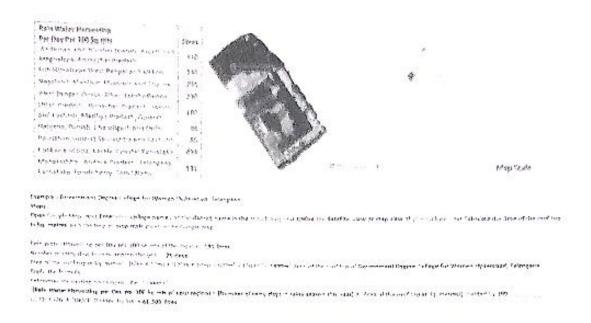
So, water made available is [(10000 X2) + (5000 X 3)] X (1)

= [(20000) + (15000)] X (1)

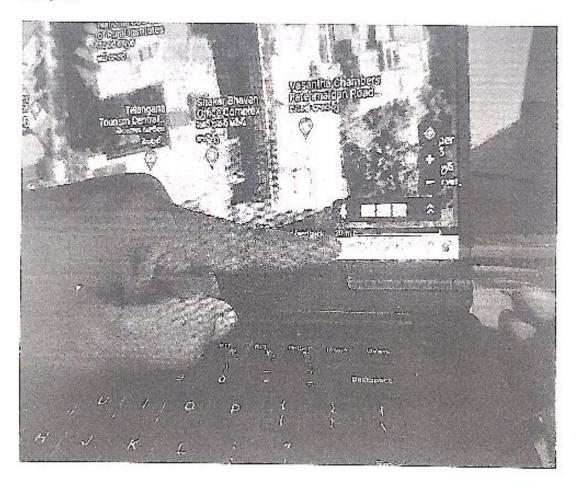
- $= [35000] \times (1)$
- = 35000 litres water is made available

3) Rainwater Harvesting on campus (liter calculation is given below	/ Season)? Example and
2,04,705 [ter/day	
EXAMPLE Rainwater Harvesting on campu	is (liter / Season)?
Example and calculation is given below	Contract Con





# Scale and Map 4.5 cm=20 meters Using Google map on Mobile or Laptop or computer



Measurement of Area length X Breath .... Scale Example 4.5 cm=20 meters





4)	Recycling of water from sewage treatment plant ( liter / day) ?
7	it applicableotherwise mention not applicable

N.A.

- 5) Water Sources Audit ? Utilize Swachh Campus Manual \*
- O Done
- Not yet done

SOLAR ENERGY AND ENERGY CONSERVATION a part of installation of renewable energy project (Yes /No) \*

1) Are you

Yes

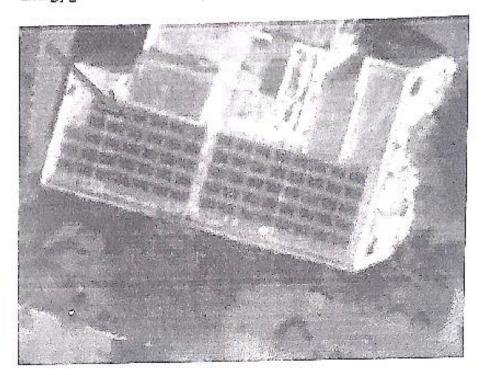
O No



2)	Are you taking any remarkable action for Energy Conservation (Yes /No) *
(	) Yes
C	) No
-	
3)	Requirement of energy (in Kilowatt or Units / month)? 1 Unit = 1 kWh
44	50 KWH/MONTH
4) pa	Energy generated via solar (in Kilowatt / month)? if Applicable (HINT: 3 solar nels will generate 4 KWH per day of electricity on a sunny day or 4 Units)*
29:	20 KWH/MONTH.
E)	(AMPLE Energy Generated per month



# Energy generated via solar (in Kilowatt / month)



Count the number of panels on your college with help of satellite picture from Google map. 3 panels will generate 4 KWH per day electricity (on a sunny day)

Example: Total 78 panels are there in the picture given above Energy generated via solar (in Kilowatt / month) = (Number of panels divided by 3) X (4 KWH) X (30 days)

= (78 divided by 3) X 4 X 30

=26 X4 X 30

= 3120 KWH

5) % Energy needs met by Solar Energy? Example is given below

65.47 %

EXAMPLE for % Energy needs mot by Solar Energy



quirement of energy (in Kilowatt/ r	nonth)		
7			
ergy generated via solar (in Kilowa)	t / man	th) = 15	00
quirement of energy (in Kilowatt/ r	nonth)	- 4000	
nergy needs met by Solar Energy =	1500	X 100	= 37.5
		000	

GRI

1) Area under green cover (in sq ft or Sq mts or in acre)?

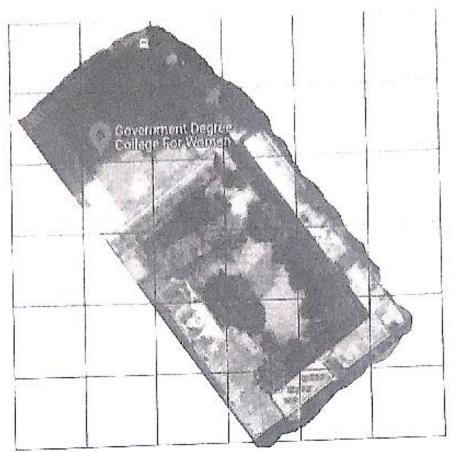
HINT:

Green area includes any area which has grass cover, tree cover and horticulture.

1,14,505.00 M

Area under green cover in Sq. mts? EXAMPLE





20 mL

With the help of the above example find out by looking at the satellite view of your college and estimate approximately the area under green cover and percentage of greenery Example: Government Degree College for Women is green cover approximately 30% Total campus area is= 140 m X 120 m=**16800 m**²

Total Green Area = (Total campus Area X 30) divided by 100

- (16800 m² X 30) divided by 100
- $-504,000 \, \text{m}^2$  divided by 100
- = <u>5040 m²</u> is the Extent of Green Area
- Availability of Nursery on Čampus? (Yes / No) \*
- Yes
- Plant Protection Management availability? 3)

(Yes / No)

HINT:

There is a need for managing the protection of plants on the campus on a continuous basis. \*

Yes



0	No
*****	
4)	Number of plants/trees planted in the year 2021-22? *
40	
5)	Extent of area (% of area) under tree cover?
	[Usually 33% is better condition] *
85 %	

Same EXAMPLE for the extent of green area in percentage





With the help of the above example find out by looking at the satellite view of your college and estimate approximately the area under green cover and percentage of greenery Example: Government Degree College for Women is green cover approximately 30% Total campus area is= 140 m X 120 m – 16800 m<sup>2</sup>

Total Green Area = (Total campus Area X 30) divided by 100

- = (16800 m<sup>2</sup> x 30) divided by 100
- $= 504,000 \text{ m}^2 \text{ divided by } 100$
- = 5040 m<sup>2</sup> is the Extent of Green Area

### WASTE MANAGEMENT

1)	Collection of Solid Waste	(kg/day)?	
		EXAMPLE is given	below *

143, 85 K.G./DAY

EXAMPLE Collection of Waste per day



Hint: Usually waste per person per day generated ideally for a day scholar is in the range of 50 grams to 150 grams. Usually waste per person per day generated ideally for a hosteller is 200 grams to 350 grams.

#### Example 1:

Total number of day scholar students 1200

Total number of Faculty 45

Total number of Stalf 15

Collection of Solid Waste (kg/day) = (1200+45+15) X 50 gram

- = (1260) X 50 grams
- = 53000 grams
- = 63000 divided by 1000
- = 63 Kg /day

(No Hostel)

Example 2:

Total number of day scholar students 2100

Total number of Faculty 50

Total number of Staff 25

Collection of Solid Waste (kg/day) = (2100+50+25) X 50 gram

- = (2175) X 50 gram
- = 108750 gram
- = 108750 divided by 1000
- = 108.50 Kg /day

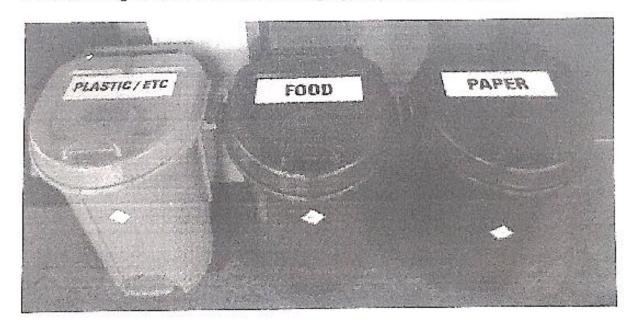
Total number of students in hostels 700

So, Collection of Solid Waste (kg/day) in hostel =700 X 200 gram = 140000 gram

- = 140000 divided by 1000
- = 140 Kg /day

Total Collection of Solid Waste (kg/day) is 108.50 + 140 = 248.5 Kg/day

Understanding Waste Generation and Segregation EXAMPLE Picture



Segregation is important!





2) Is segregation of Solid Waste done in the Institute? If yes approx. How many kg of waste is segregated per day?

50 KG/DAY

3)	Арргох.	how much of solid waste is recycled every day (Kg/day)?	,
----	---------	---	---

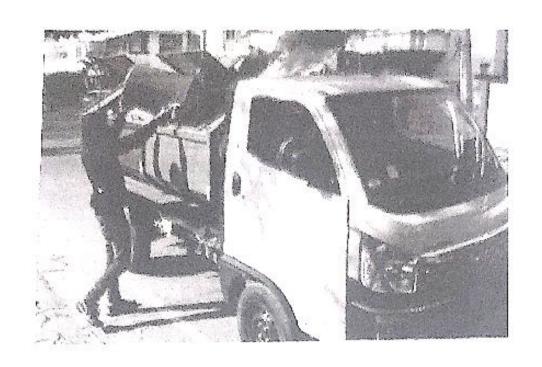
N.A.

 Approx. how much of solid waste is disposed (kg/day)? (collected by garbage collectors)

50 KG/ DAY

Waste Disposed Every day





5) B	io Medical Waste management. *
0	Yes
$\bigcirc$	No

6)	Availability of	functional	drainage	system? *

Yes

(1)

Not applicable

○ No

LAND USE MANAGEMENT for Sustainability or Swachhta activities

1) Total land (area in Acre) or Sq Meter? \*

40 ACRE

2) Constructed area (Approximately in Sq meters) ?Hint: Utilize the Google Map picture of your college

3)	Total proposed area for development / Open area (Approximately in Sq.
meti	ers)? Hinf: Utilize the Google Map
pictu	ure of your college? *
1.14,	505.00 Sq. M.
4) harv	Total proposed area for greenery and environmental services including water resting and composting (approximately in Sq. meters or Sq Yards or in acre)?
85 %	
5) / No	Whether there is a Land use management plan available for the campus (Yes
(6)	Yes
0	No
0	Not applicable
Dlor	aca montion Chaolal Environmental factures of your Educational Institution

Please mention Special Environmental features of your Educational Institution /College/University EXAMPLE is given below \*

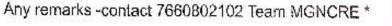
All water system is connected with Rolclant, water for crinking, with whole campus and 30% of RO rejected water is use for flushing, we decomposing garden west convert lit into the manure. The excessive compost is use in our large campus garden. No, of water harvesting Pit, is 1, 85% of total campus comprises of green cover herbs, shrubs and tree, 50% of campus is equipped with LED for saving energy. We adopted SHAHPURA village of dist. Bharuch, approximately 70 - 100 families are covered by the efforts of the college.

Special Environmental features of your Educational Institution /College/University EXAMPLE is given below



- All water supply system is connected with RO water for drinking in whole campus and 180% of RO rejected water is used for flushing.
- Maximum possible usage of machines like Chapati Machine, Boller, Tilting Pan, High Pressure Cooking Ranges, wet & Dry Grinders etc in the hostel kitchens
- Compost Machines' Capacity" 250 kg/day, decomposing garden & kitchen waste, converts it into manure. The food & green waste are used for composting. The excessive compast is given to nearby villages: Lokra, Sidhrawali & Kapriwas etc for the use as a part of CSR activity.
- Number of rain water harvesting pits is 22 for maintaining ground water level.
- 700 KLD STP for treating kitchen & tollet waste, entire campus water is treated having zero discharge outside.
- 84% of total campus comprises of green cover, trees, shrubs etc.
- Solar Cell-Grid connected photovoltaic power system of 246 KW capacity
- Whole campus area is equipped with LEO lighting for saving energy.

<ul> <li>Approximately 150-200 families are covered</li> </ul>	d by the efforts of the University	
The student club "Savera" is conducting edit		ents of village.
YOUR NAME *		
DR. Nilin M. Patel		
2002		
Your Designation *		
Principal,		
Mobile preferably Whats App *		
9428106650	i i	
Your Email *		
pnitin61@gmail.com	anar :	
	SHO	





PINCODE of the Institution 1

382901

United state and Donale, Facts Service, Missale

