Water conservation facilities available in the institution

- **Introduction**

Water conservation is the practice of using water efficiently to reduce unnecessary water usage. It's crucial for several reasons:

Limited Resource: Fresh, clean water is a limited resource and demand for it is constantly increasing due to population growth and industrialization.

Environmental impact: Water scarcity can lead to environmental degradation such as desertification and loss of biodiversity.

Social Impact: Lack of access to clean water can lead to health problems and social unrest.

For the water conservation college designed a plan for water conservation.

- **Design of proposed catchment area:**

College has vast rooftop that receives rainfall directly and drains the water system. The existing roof is made use of to collect rainwater. Therefore, the rooftop of building is swept and cleaned regularly for collecting the rain water to its maximum purity.

Here, we calculated area which are useful in collecting rainwater. We made system

System-1:	Area of the rooftop of hall number 55, 56, 57	= 3872 sq. ft.
System-2:	Area of the rooftop of hall number 58, 59, 60, 61, 62	= 5075 sq. ft.
System-3:	Area of the rooftop of girls hostel	= 3444 sq. ft.
Total area of proposed catchment		**= 12391 sq. ft.**

- **Design of transportation system:**

For collecting the rain water from the catchment area in this project we have used polyvinyl chloride (PVC) pipes and fittings. For the collection purpose, we are using pipes ranging 2.5 - 3 inches diameter. First rain water is flushed out and does not enter the system. This is done since the first spell of rain carries a relatively larger number of pollutants from the air i.e. acid rain. The water is transferred to the special kind of filters which removes the leaves, dust, small twigs and other organic matter. In case of system-1, filtered water is then allowed to flow into the bore well near boys parking slot. In case of system- 2, filtered water is transferred into the bore well in the staff parking slot and in case of system-3 rain water from girl's hostel rooftop is transferred into specifically designed dug well near the bore well of girl's hostel.

- **Approximate amount of water percolated under the ground per year:**

The average monsoon rainfall in the area is approximately 666 mm per year. From average rainfall and the total surface of rooftop catchment area for each system, we have calculated the amount of water percolated under the ground per year which is given as below.

- System-1= 2,32,000 litres of water
- System-2= 3,04,000 litres of water
- System-3= 2,06,000 litres of water

2. Borewell /Open well recharge:

A borewell, also known as a tubewell, is a common method of accessing groundwater for various purposes. Total area of the college campus is about nearly 3 acres. Only 40% of total area was developed as academic zones and the balance area is about 60 %. The college campus depends on ground water for all its needs for drinking and gardening. Daily need of water in the campus is around 10,000 liters approximately. To compensate the mentioned daily need we had constructed 2 number of bore wells with different depths as per the sub soil water position and all are recharge regularly with harvesting and soak pits.

3. Construction of tanks and bunds

College needs water for different purposes such as, drinking, sanitation, fire safety, sewage treatment, laboratory and for regular cleaning. Therefore, to store water is necessary. As the water crisis continues to become severe, In this institute we built 2 ground tanks to collect and storage the water for reuse on-site.

4. Waste water recycling:

Waste water recycling is the process of treating wastewater to remove contaminants and reuse it for various purposes. In this college, girl's hostel is constructed of accommodating capacity around 100 girls. Approximately require 3000 liters of water for smooth functioning. Total water demands are being meet extract from ground water through bore wells and these are recharged with ground tanks and harvesting pits. Total waste water produced from these hostels treated with waste water treatment plant. The waste water after treatment is proposed to be utilized effectively for gardening purpose. This reduces the demand of freshwater.

5. Maintenance of water bodies and distribution system in the campus:

Proper maintenance of water bodies is crucial for ecological balance, water quality and overall environmental health. The college campus depends on ground water for all its needs and the daily need of water in the campus is around 10,000 liters approximately. There are 8 overhead storage tanks in the campus. The water is distributed through proper well laid pipe network. For the drinking water, RO plant is setup. Water for all other purpose is supplied through another set of distribution pipes. College created maintenance committee to ensure that there are no leakages and wastages of water.

ISO 14001:2015 Environmental Management System

ISO 14001:2015 Certificate Of Registration

Geotek Global Certification Pvt. Ltd.

hereby certify that the organization

Navgan Shikshan Sanstha, Rajuri (N.)
Mrs. Kesharbai Sonajirao Kshirsagar
Alias Kaku Arts, Science & Commerce College, Beed

Address : Beed 431122, Maharashtra, India

has implemented and maintains an **Environmental Management System** for

Scope :

To Evolve and Impart Comprehensive Higher Education to the Students of Under Graduation, Post-Graduation, Diploma Courses, Certificate Courses & Doctoral Degrees in Arts, Commerce & Science.

An audit was performed and proof has been furnished that the management system fulfils the requirements of international standard detailed below ...

Standard	**: ISO 14001:2015**
Certificate No.	**: 21.GGCS.IN.140182**
Certification Date	**: 31st January 2022**
Cert. Expiry Date	**: 30th January 2025**

Geotek Global Certification Pvt. Ltd.

imab International Management Accreditation Board

Reg. No. IN/EMS20/0512

Chief Executive Officer
Geotek Global Certification Pvt. Ltd.
102, Raj Legacy, Near Bramhand Phase 5, Off. GB Road,
Thane (West), Pin 400607, Maharashtra, India

Geotek Global Certification Pvt. Ltd. is accredited by International Management Accreditation Board (Singapore)
51, Goldhill Plaza, #07-10/11, Singapore 308900

The continual validity of the certificate is conditional to compliance with the terms and the conditions of Geotek Global Certification Pvt. Ltd. - Certification Scheme Regulation. Validity of the certificate may be verified on following websites : ***www.geotek.co.in*** and accreditation body's website : ***www.imach.com***

ASSURE QUALITY

MANAGEMENT CERTIFICATION SERVICES PVT. LTD.

COMPLIANCE VERIFICATION

This is to certify that
Navgan Shikshan Sanstha Rajuri (N.)

MRS. KESHARBAI SONAJIRAO KSHIRSAGAR

ALIAS KAKU ARTS, SCIENCE & COMMERCE COLLEGE

Beed - 431122 - Maharashtra

India

Has been assessed and found to be in accordance with the requirements of detailed below

Green Audit

Reference A064 latest revision

To Evolve and Impart Comprehensive Higher Education to the Students of Under Graduation, Post-Graduation, Diploma Courses, Certificate Courses & Doctoral Degrees in Arts, Commerce & Science

Certificate Number:AB00AA/00AB:0222

Originally Registered:02 Feb.2022 Latest Issue: 02 Feb.2022 Originally Expiry Date:01 Feb.2025

Validity of this certificate is subject to annual surveillance audit to be done successfully on or before of 22 Jan.2023 &22 Jan.2024 respectively. In case if surveillance audit is not allowed to be conducted, this certificate shall be suspended/withdrawn.

AQMCS

For AQMCS PVT LTD

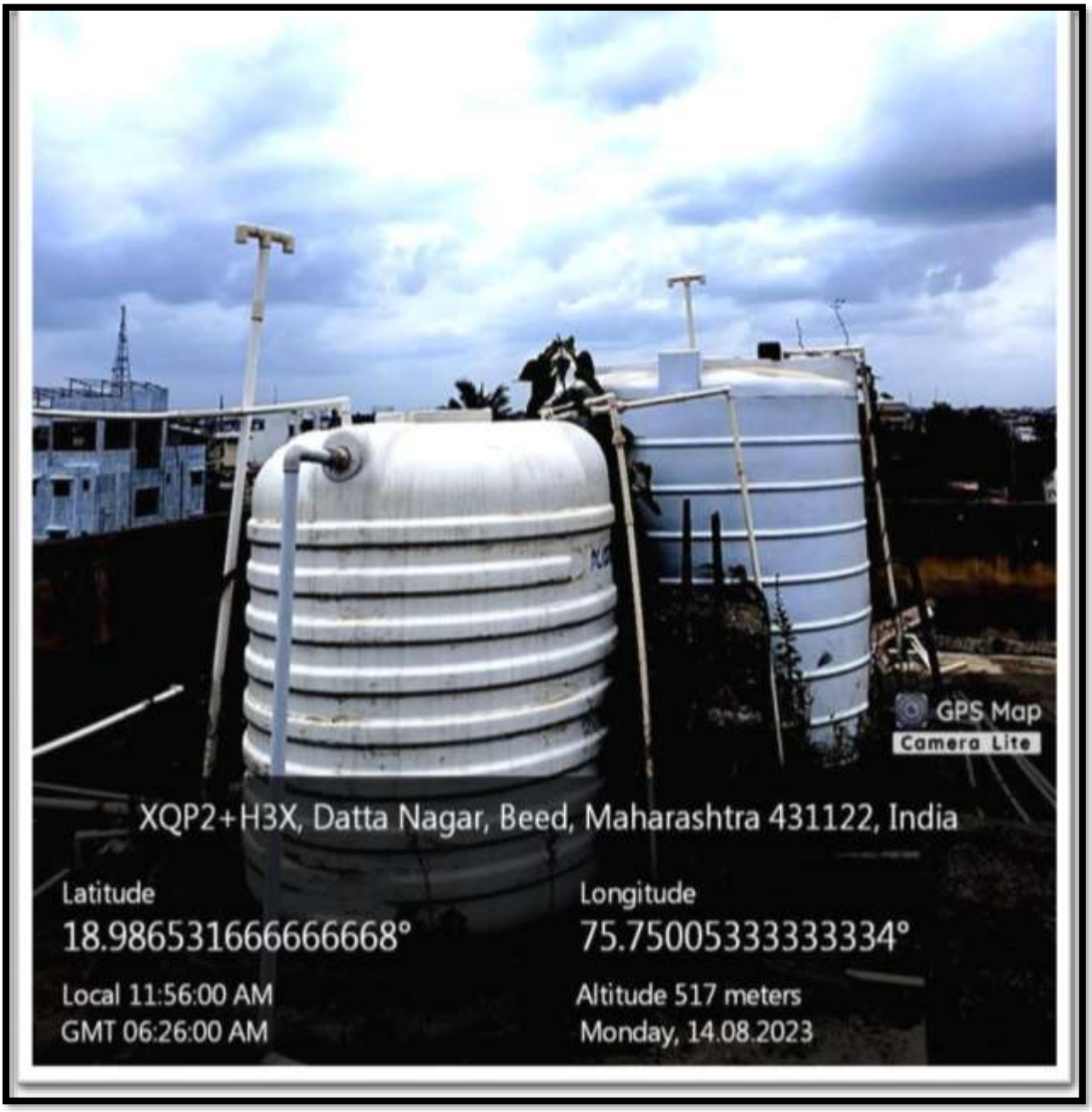
Validity of this certificate can be checked at www.aqmcs.com at registration status. The validity of certificate is subject to continuous compliance the requirement of concerned standard & relevant provision of AQMCS customer contract & scheme of registration A004(latest version) available at www.aqmcs.com This certificate remains the property of AQMCS & shall be returned immediately at the request to AQMCS headquarters.
#1172, Sector-11, Panchkula-134109, Tricity Chandigarh- India

Rain Water Harvesting Plant:

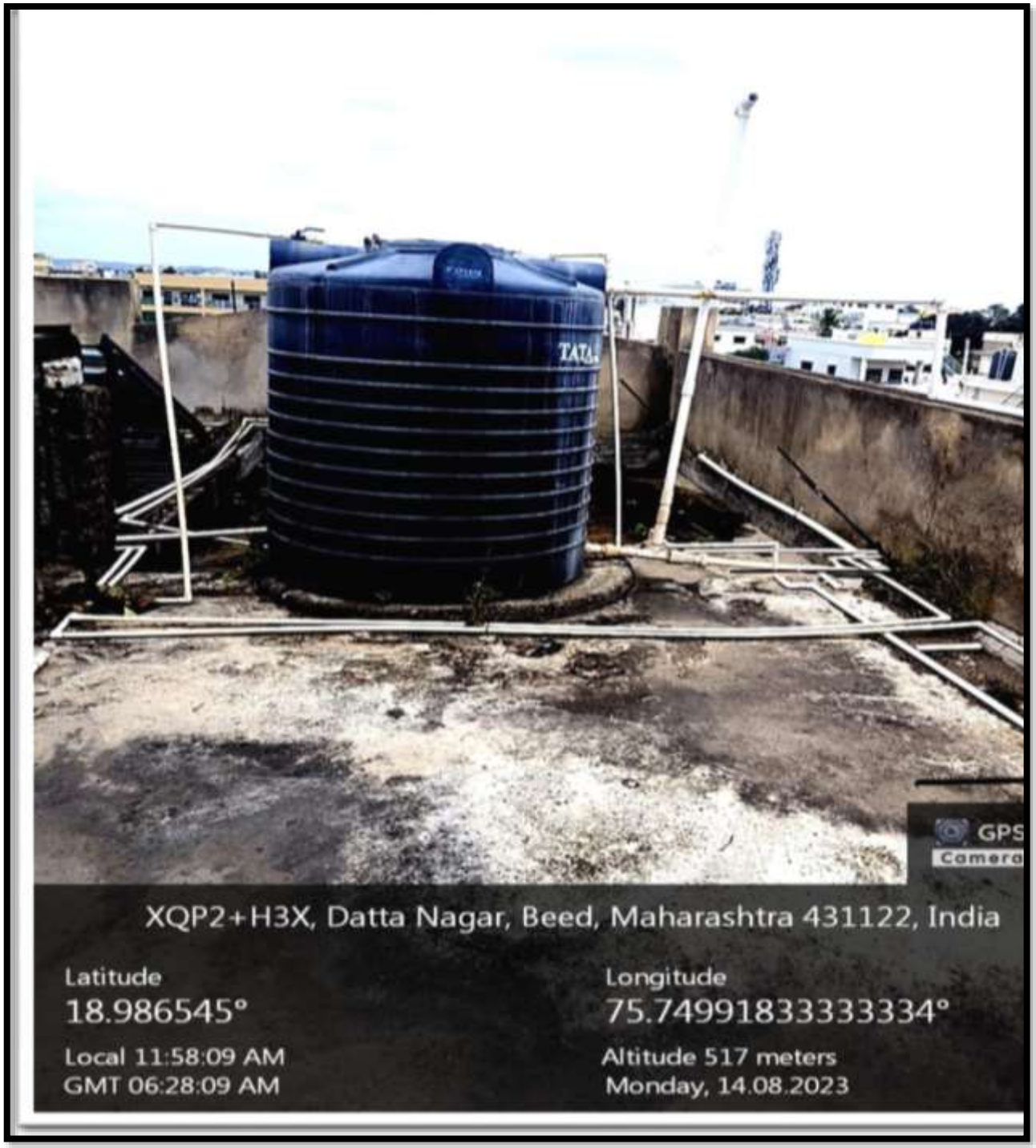

GPS Map Camera
Beed, Maharashtra, India
13596, Navghan College Rd, Kranti Colony, Datta Nagar, Beed, Maharashtra 431122, India
Lat 18.985813°
Long 75.750603°
30/11/24 03:22 PM GMT +05:30
Google

Bore well Recharge Plant:

Waste water recycling Plant:




मराठवाडा शिक्षण संस्था संचलित
सौ. केशरबाई सोनाजीराव क्षीरसागर ऊर्फ काकू
कला, विज्ञान व वाणिज्य महाविद्यालय, बीड
शुद्ध व थंड पिण्याचे पाणी
Drinking Water
जल ही जीवन है...
ही सोय विद्यार्थ्यांसाठी केलेली आहे.
याची योग्य ती काळजी सर्वांनी घ्यावी
याची तोडफोड केल्यास योग्य
ती कारवाही केली जाईल. - आदेशावरू
GPS Map Camera
Beed, Maharashtra, India
XQP2+H3X, Datta Nagar, Beed, Maharashtra 431122, India
Lat 18.986497°
Long 75.750446°
30/11/24 03:55 PM GMT +05:30
Google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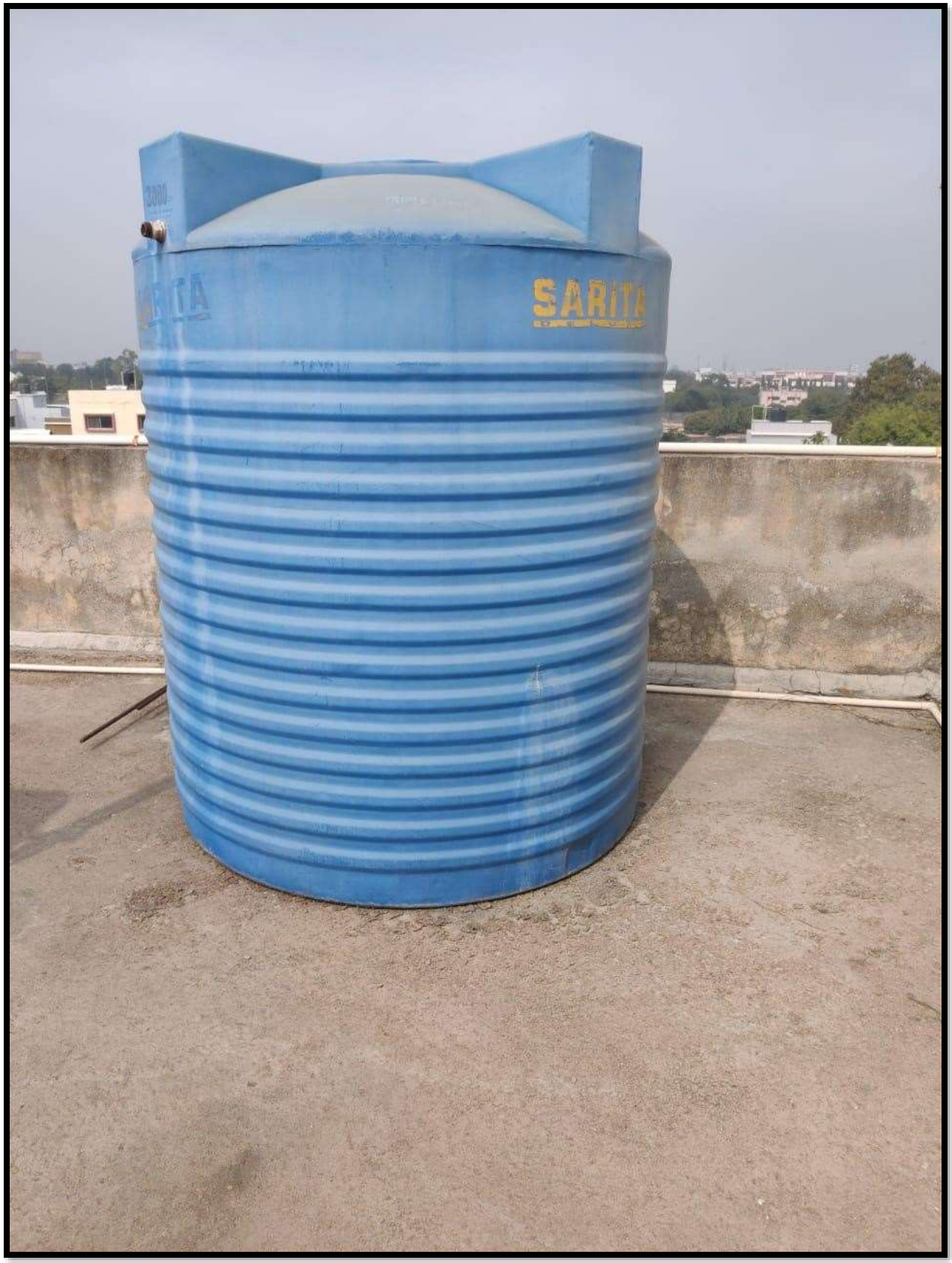
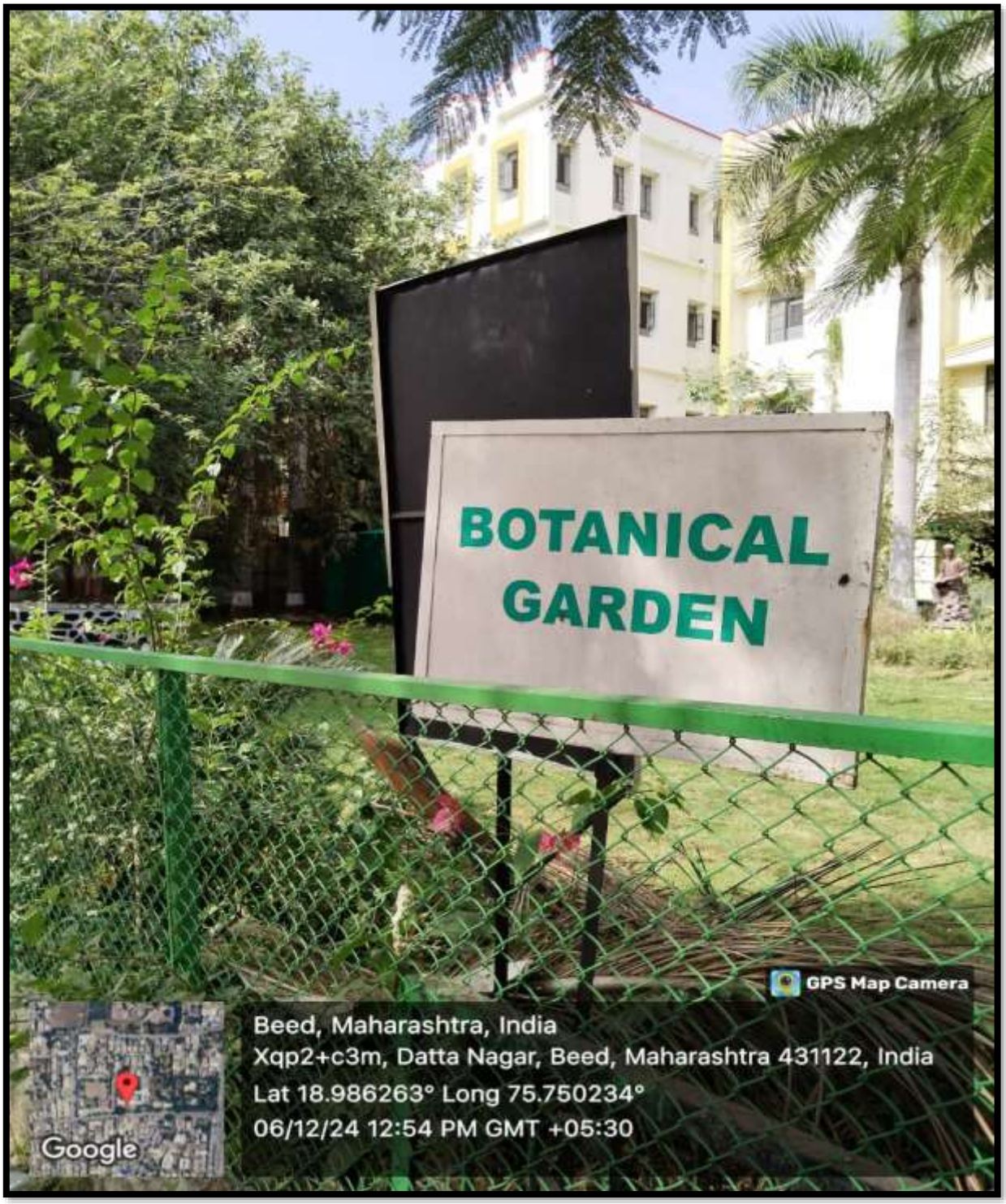
Monday, 14.08.2023


SARITA


OXYGEN PARK
GPS Map Camera
Beed, Maharashtra, India
XQP2+H3X, Datta Nagar, Beed, Maharashtra 431122, India
Lat 18.986448°
Long 75.750286°
30/11/24 03:57 PM GMT +05:30
Google


BOTANICAL
GARDEN
GPS Map Camera
Beed, Maharashtra, India
Xqp2+c3m, Datta Nagar, Beed, Maharashtra 431122, India
Lat 18.986263° Long 75.750234°
06/12/24 12:54 PM GMT +05:30
Google

All the information given above are true. Hence certified.

IQAC Coordinator

Principal

N.S.S.R.(N.) Mrs.K.S.K.Alias Kaku Arts, Science and Commerce College ☆ Beed 431122

Principal
N.S.S.R.(N.) Mrs.Kesharbai Sonajirao Kshirsagar Alias Kaku Arts, Science and Commerce College, Beed.