



**(2023-24)**

**DEPARTMENT OF ENVIRONMENTAL SCIENCES**

**1. Details of the Event**

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	Cycle Rally	Environmental Sciences	4 <sup>th</sup> June 2023	B. K. Birla College	217

**2. Objective:**

- Promotion of ecofriendly mode of transportation.
- Promotion of good health by cycling.

**3. Report:**

On the occasion of World Bicycle Day, a Cycle Rally was organized by B. K. Birla College in association with Kalyan Dombivli Municipal Corporation (KDMC) on 4th June 2023. More than 200 participants including faculty and students of B. K. Birla College, faculty of KDMC, different cycle associations, etc. had participated in the rally. Dr. Bhausaheb Dangde, Hon'ble Commissioner, KDMC was invited as chief guest for the rally. Dr. Dangde, Dr. Naresh Chandra, Director (Education), B. K. Birla College and Shri. Sachin Gunjal, Deputy Commissioner, Police Department (Zone 3) requested all to opt for bicycling in their speech and then flagged off the rally at 6.00 am from B. K. Birla College.

The route of the rally was B. K. Birla College – Bhavani Chowk – Subhash Chowk – Valdhuni bridge – Chakki Naka – Patripool – Shivaji Chowk – Lal Chowki – Adharwadi Chowk – Khadakpada Circle – B. K. Birla College. Through this route, the rally covered most of the areas of Kalyan (E) and Kalyan (W). The objectives of opting for ecofriendly mode of transportation and promotion of good health through cycling was spread through this rally. The participants took more than 30 minutes to reach the destination. Towards the end, all were served with refreshments and certificate of participation.

4. Photos



## 5. Letters of Communication



**कल्याण डोंबिवली महानगरपालिका व बी.के. बिर्ला महाविद्यालय (स्वायत्त)**  
यांच्या संयुक्त विद्यमाने

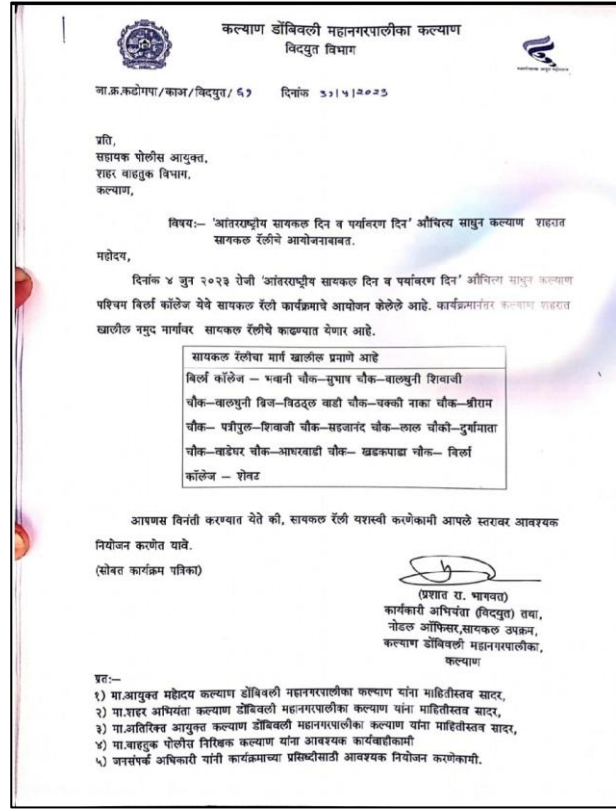
**GO GREEN!**

**आंतरराष्ट्रीय सायकल दिन व पर्यावरण दिनाचे औचित्य साधून**  
कल्याण डोंबिवली शहरात  
रविवार दिनांक ४ जून २०२३ रोजी  
भव्य सायकल रॅलीचे आयोजन केलेले आहे.  
कल्याण डोंबिवली शहरातील सर्व नागरिकांना नम्र विनंती आहे की  
भव्य सायकल रॅलीमध्ये उत्स्फूर्तपणे सहभाग घ्यावा.  
टीप : सायकल रॅलीमध्ये सहभागी होणाऱ्या सायकल वीरंतांना टी-शर्ट  
व प्रमाणपत्र देण्यात येणार आहे.

**\* प्रमुख पाहुणे \***  
डॉ. भाऊसाहेब दांगडे आयुक्त कल्याण डोंबिवली महानगरपालिका  
श्री सचिन गुंजाळ आयुक्त पोलीस परिमंडळ ३  
डॉ. नरेशचंद्र संचालक, बी.के. बिर्ला महाविद्यालय

**\* सायकल रॅलीचे स्थळ \***  
बी.के. बिर्ला महाविद्यालय प्रांगण  
रविवार दिनांक ४ जून २०२३ सकाळी ६:०० वाजता

**\* आपले विनीत \***  
श्री प्रशांत रा. भागवत, नोडल ऑफिसर (सायकल उपक्रम) कल्याण डोंबिवली महानगरपालिका  
डॉ. अविनाश पाटील प्राचार्य बी.के. बिर्ला महाविद्यालय कल्याण  
कल्याण सायकलिस्ट फाउंडेशन हिरेकणी महिला सायकलिस्ट ग्रुप  
डोंबिवली सायकलिस्ट ग्रुप पतावा सायकलिस्ट ग्रुप  
टिम बाईकपोर्ट



कल्याण डोंबिवली महानगरपालिका कल्याण  
विद्युत विभाग

ना.क्र.क्रडोगपा/काज/विद्युत/ ६१ दिनांक ३१/५/२०२३

प्रति,  
सहायक पोलीस आयुक्त,  
राष्ट्र वाहतूक विभाग,  
कल्याण,

विषय:- 'आंतरराष्ट्रीय सायकल दिन व पर्यावरण दिन' औचित्य साधून कल्याण शहरात सायकल रॅलीचे आयोजनबाबत.

महोदय,

दिनांक ४ जून २०२३ रोजी 'आंतरराष्ट्रीय सायकल दिन व पर्यावरण दिन' औचित्य साधून कल्याण परिषद विले पार्ले येथे सायकल रॅली कार्यक्रमाला आयोजन केलेले आहे. कार्यक्रमांनंतर कल्याण शहरात खालील नमुद मार्गावर सायकल रॅलीचे काढण्यात येणार आहे.

सायकल रॅलीचा मार्ग खालील प्रमाणे आहे  
विले कॉलेज - भवानी चौक-सुभाष चौक-बालमुनी शिवाजी चौक-बालमुनी प्लेज-विठ्ठल बाही चौक-चवकी नाका चौक-श्रीराम चौक- पाटीपुल-शिवाजी चौक-सहजानंद चौक-लाल चौको-दुर्गामता चौक-वाडेर चौक-आगरवादी चौक- खडकपाडा चौक- विले कॉलेज - रोवद

आपणस विनंती करण्यात येते की, सायकल रॅली यशस्वी करणेकामी आपले स्तरवर आवश्यक नियोजन करणेत यावे.  
(सोबत कार्यक्रम पत्रिका)

(प्रशांत रा. भागवत)  
कार्यकारी अधिकारी (विद्युत) तथा,  
नोडल ऑफिसर, सायकल उपक्रम,  
कल्याण डोंबिवली महानगरपालिका,  
कल्याण

प्रत:-  
१) मा.आयुक्त महोदय कल्याण डोंबिवली महानगरपालिका कल्याण यांना माहितीस्तव सादर,  
२) मा.शहर अभियंता कल्याण डोंबिवली महानगरपालिका कल्याण यांना माहितीस्तव सादर,  
३) मा.अतिरिक्त आयुक्त कल्याण डोंबिवली महानगरपालिका कल्याण यांना माहितीस्तव सादर,  
४) मा.राष्ट्रिय पोलीस निरीक्षक कल्याण यांना आवश्यक कार्यबाहीकामी  
५) जनसंपर्क अधिकारी यांनी कार्यक्रमाच्या प्रसिध्दीसाठी आवश्यक नियोजन करणेकामी.

## 6. Outcome

Participant enjoyed the noble cause of spreading awareness for using Bicycle over other modes of transport through this rally.



Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences



## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### 1. Details of the Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	Mega Plastic Waste Collection drive and Special Guest Lecture	Environmental Sciences	5 <sup>th</sup> June 2023	B. K. Birla College	156

### 2. Objective:

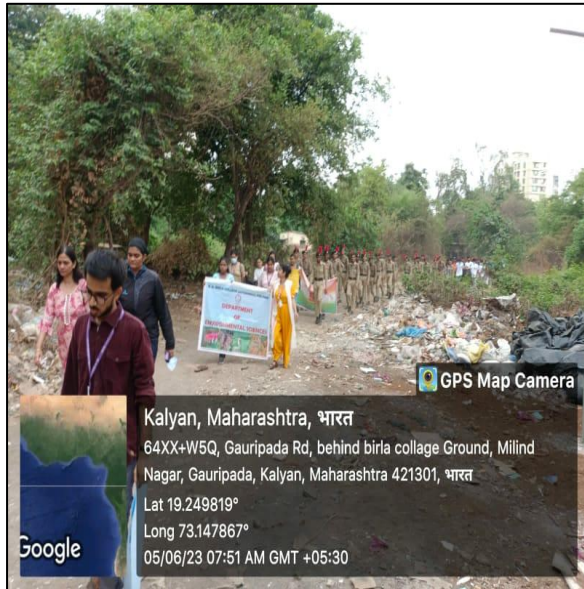
- To spread awareness about consequences of plastic waste.
- To spread awareness about significance of World Environment Day.

### 3. Report:

The theme of World Environment Day 2023 was Beat Plastic Pollution. On this occasion, three activities were organized on 5th June 2023. At the onset, tree plantation activity was organized. Total 12 saplings were planted in the college campus. Next activity was Mega Plastic Waste Collection Drive. Total 156 students from Department of Environmental Sciences, NCC Cadets and NSS volunteers of B. K. Birla College (Autonomous), Kalyan had participated in the drive. All participants were provided with gloves, mask and disposable plastic bag for collection of plastic waste. The drive started at 7.30 am from B. K. Birla College and participants collected the plastic waste on the way to Lotus Pond and back. Total 135 kgs of plastic were collected by the participants. The waste was then given for recycling. After the drive, Dr. Naresh Chandra, Director (Education), BKBC and Dr. Avinash Patil, Principal, BKBC spread the word of awareness of beat plastic pollution in their speech. Later, an oath was taken by all to avoid plastic pollution.

In the next session, an online Special Guest Lecture was organized on the topic 'Biodiversity measurements and Conservation implications' by Dr. Anuradha Bhat, Associate Professor, Department of Biological Sciences, IISER, Kolkata. Total 65 participants had attended the lecture.

### 4. Photos



5. Letter of Communication



**B. K. Birla College (Autonomous), Kalyan**  
**Department of Environmental Sciences**  
celebrates  
**World Environment Day**  
(Theme: #Beat Plastic Pollution)  
**5<sup>th</sup> June 2023**

<p><b>Tree Plantation</b> Time: 7.00 am Venue: Beside Canteen, B. K. Birla College</p> 	<p><b>Special Guest Lecture</b></p>  <p><b>Dr. Anuradha Bhat</b> Associate Professor Dept. of Biological Sciences (DBS) IISER, Kolkata</p> <p><i>Topic: Biodiversity Measurements and Conservation Implications</i></p> <p>Time: 11.00 am to 12.30 pm Link: <a href="https://rb.gy/la02c">https://rb.gy/la02c</a></p>
<p><b>Mega Plastic Waste Collection Drive</b> Time: 7.30 am</p> <p>Note:</p> <ul style="list-style-type: none"> <li>• Hand gloves and Plastic bags will be provided for collection of plastic waste</li> <li>• Kindly bring face mask.</li> </ul>	



## 6. Outcome

Participant were happy to participate in the Celebration of World Environment Day. Students understood the consequences of plastic pollution and they agreed to minimize the use of plastic items in their daily life.

Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences



## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### 1. Details of the Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	Mangrove Plantation	Environmental Sciences	8 <sup>th</sup> August 2023	Dombivili Jetty	86

### 2. Objective:

- To restore Mangrove ecosystem.

### 3. Report:

The Mangrove forest are seen along various creek such as Manori, Malad, Bassein, Panvel and Dharamtar along the Elephant island; there are small pockets surrounded along the length of the Central and South- Mumbai coastline. But the most wide-ranging mangrove growth exist the Thane creek & it's winding waterways which are known to amount for half of extent of this mangrove forest type of this region. The Thane creek (72055' to 73000'E, 19000 to 19015' N ) is the regions major creek, connected to Mumbai harbour on its south and linked with minor channel on its south and linked with minor channel with the Ulhas river on its North near Thane City.

To commomerate the International Day for the Conservation of Mangroves, a visit to Dombivli Jetty was organized on 8<sup>th</sup> August 2023. Total 86 students from different departments of B. K. Birla College had visited the place. Firstly, a trail was organized to understand the details of mangroves. Godrej mangrove incharge Mr. Hemant Karkhanis, gave brief information about mangroves conservation. List of Mangroves species spotted include *Grey Mangrove*, *Avicennia marina var. acutissima*, *Yellow mangrove Ceriops tagal*, *Black mangrove Lumnitzera racemose*, *Sonneratia apetala*, *Sonnertia alba*, *Rhizophora mucronate*, *Avicennia officinalis*, *Avicennia alba*, *Agiceras corniculate*, *Bruguiera gymnorrhiza*, *Bruguiera cylindrica*. After the trail, the students planted 12 mangrove saplings in the jetty area under the supervision of the experts. The visit was concluded with vote of thanks.

#### 4. Photos



#### 5. Outcome

Students understood the significance of mangroves for the stability of ecosystem.



Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences





## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### 1. Details of the Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023 - 24	One Day National Symposium on Development of Resilient technologies for Climate change	Environmental Sciences	22 <sup>nd</sup> August 2023	B. K. Birla College	104

### 2. Objective:

- To understand Resilient technologies for Climate change.

3. Report:

**Report on One Day National symposium on**

**'Development of Resilient Technologies for climate change Mitigation'.**

**on Tuesday, 22 August 2023.**

B. K. Birla College ( Autonomous), Kalyan jointly with CSIR and ICCSA foundation organized one-day national symposium on 'Development of Resilient Technologies for Climate Change Mitigation' on August 22, 2023 in seminar hall. The symposium main focused on technologies for climate change and mitigation. The programme started at 11:02 am by welcome address by Dr. Sonal Tawade. The dignitaries on the dias were Dr. Naresh Chandra, Director (Education) BKBC, Dr. Maninder Kaur Dhaliwal, Vice-Principal, BKBC, Dr. Avinash Patil, Principal, BKBC, Dr. Rakesh Kumar OSD, CSIR, Dr. Tuhin Banerji, co-ordinator for ICCSA, Dr. Hemant Bherwani, senior scientist, NEERI, Nagpur.



**Dr. Sonal Tawade addressing about the programme**

Opening remarks and introduction of the programme was given by Dr. Sonal Tawade. She highlighted the importance of the development of technologies for climate change and working on to achieve sustainable development goal 13 – Urgent action to combat climate change and its impact. Chief guests inaugurated Green club of B. K. Birla ( Autonomous) College; in which main objective to work on water conservation, waste management, biodiversity conservation and so on. Subject experts Prof. Varsha Kelkar, Professor and Head department of Biotechnology, University of Mumbai, Dr. Reda Kahaj, senior researcher, Earth Engineering Center, Columbia University, Dr. Ajay Ojha, Director, Technowgreen Solutions Ltd., Pune, Dr. Dave Risk were the dignitaries invited for the symposium. Felicitation of chief guests by Director (Education) BKBC Dr. Naresh Chandra and by Principal Dr. Maninder Kaur Dhaliwal. She also welcomed all research experts and expressed gratitude to Director (Education) BKBC, Dr. Naresh Chandra, Principal Dr. Avinash Patil, Vice principal Dr. Maninder Kaur Dhaliwal for giving an opportunity to organize a seminar on a theme, relevant to societal need. Interested faculty and students from B. K. Birla (Autonomous) College Kalyan SIES college attended the symposium



**Introduction of chief guest by Dr. Maninder Kaur Dhaliwal**



**Director's Address**



**Inauguration of Green club of B. K. Birla ( Autonomous) College, Kalyan by chief guests.**

The keynote address was given by chief guest **Dr. Rakesh Kumar, OSD, CSIR**. He talked on resilience and climate change, how the climate linked disturbances and disasters are becoming the biggest risk, effects of climate change, etc. He also gave steps for resilience climate change. He also gave several examples of education Institutions leadership in climate change.



**Key address by Dr. Rakesh Kumar**

**Prof. Varsha Kelkar, Professor and Head, department of Biotechnology, University of Mumbai**, talked about clothing, fashion and biotechnology. She also explained how buying and discarding clothes creates pollution. She also shared an eye-opener Rana plaza tragedy occurred on 24 April 2013 in the Savar Upazila of Dhaka District, Bangladesh, where an eight-story commercial building called Rana Plaza collapsed. The search for the dead ended on 13 May 2013 with a death toll of 1,134. She also shared Aral Sea staggering disaster of 20<sup>th</sup> century, river dried up due to release of 5000 tonnes of fibers were released in the sea as a result the river dried up. She also shared some solutions like decreasing the number of buying clothes, using recycled clothes, understanding the psychology of fashion. Indigenous Green Wool Technology (IGWL) has come up with use of bamboo, banana and hemp alternative to cotton.



**Key address by Prof. Varsha Kelkar**

**Dr. Tuhin Banerji, co-ordinator, International Center for Climate Change and Sustainability Action Foundation ( ICCSA).** He talked on Constructed wetlands : New STP type to combat climate change. He mentioned about strategies for water harvesting, city planning their riverfronts and drain rejuvenation.



**Key address by Dr. Tuhin Banerji**

**Dr. Hemant Bherwani, Senior scientist, NEERI, Nagpur.** He talked on Urban micro climate : Modelling and simulation studies of better city development. He explained about importance of studying microclimate, factors affecting urban microclimate & it's change. Role of Modelling and simulation for planning better city for development.



**Key address by Dr. Hemant Bherwani**

**Dr. Ajay Ojha, Sr. Researcher, Director, Techknowgreen Solutions Ltd., Pune.** He talked on Climate resilience technologies for future. He also talked on the impact of climate change, how greenhouse gases are emitted & impact less carbon footprint. He agreed that he will provide link/connect to industries of interest to the students



**Key note by Dr. Ajay Ojha**

**Dr. Reda Kahaj, Sr. Research, Earth Engineering Center, Columbia University.** He talked on landfill methane inventory and research in Canada . He explained alarming facts of solid waste management & the solution for it.



**Key note by Dr. Reda Kahaj**



**Vote of Thanks by Dr. Maninder Kaur Dhaliwal, Vice-Principal, BKBC**

The programme was wrapped up around 5:00 pm. The vote of thanks which was given by Dr. Maninder Kaur Dhaliwal, Vice-principal, BKBC.



### 1. Details of Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	World Ozone Day	Environmental Sciences	16 <sup>th</sup> September 2023	MS TEAMS <a href="https://shorturl.at/sGJ01">https://shorturl.at/sGJ01</a>	35 Students

### 2. Objectives

- To explain Importance of ozone layer and about celebration of world ozone day to students
- To spread awareness among people about the depletion of Ozone Layer and find possible solutions to preserve it.
- To understand root causes behind problems & possible solutions of 'Urban Freeway' for preventing traffic congestion in Mumbai City and thus prevention of emission of greenhouse gases.

### 3. Report

- Department of Environmental Sciences invited Dr. Awkash Kumar for a special lecture on 'Evaluation of Control Strategies for Urban Freeway'. Dr. Awkash Kumar is CEO and Founder, Sustainable Approach for Green Environment (SAGE).
- He spoke about Megacities in India such as Mumbai and Delhi are among the most polluted places in the world. The widely used operational street pollution model (OSPM) is applied for assessing pollutant loads on the *Urban Freeway* near Chembur, a sub-urban area just outside Mumbai city.
- Dr. Awkash explained that there are six major street canyons in this area, for which modelling has been carried out for NO<sub>x</sub> and particulate matter (PM). The vehicle emission factors for Indian cities have been developed by Automotive Research Association of India (ARAI) for PM, not specifically for PM<sub>10</sub> or PM<sub>2.5</sub>. The model has been applied for 4 days of winter season and for the whole year to see the difference of effect of meteorology. The urban background concentrations have been obtained from an





air quality monitoring station. Results have been compared with measured concentrations from the routine monitoring performed in Mumbai. NO<sub>x</sub> emissions originate mainly from vehicles which are ground-level sources and are emitting close to where people live. Therefore, those emissions are highly relevant. The modelled NO<sub>x</sub> concentration compared satisfactorily with observed data.

- Dr. Awkash also explained how the OSPM model was run to compare the worst season of winter season with annual average. OSPM performed well with meteorology of time-weighted average for both periods. Average time-weighted wind direction for the study period was considered for modelling. The air pollutant dispersion is driven by wind speed, wind direction, and temperature. In the street canyon, wind speed and wind direction cause cavities and change the meteorological scenarios. For validation purposes, the model results have been compared to available ambient air quality measurements at a kerbside monitoring station where vehicles are the dominant source. The ambient measurements contain contributions from all sources and the influence of the vehicular source cannot easily be separated.
- The performance of the OSPM model with WRF meteorology was in good agreement with the observed concentration. The average pollutant concentrations in the street canyons have been generated using the OSPM for each street segment for NO<sub>x</sub>. The increment of PM is smaller because vehicles emit less PM and the background value for PM is high for the modelled values of Eastern Express Highway. So, appropriate management plans are required. The OSPM model can be applied for peak and off peak hour vehicle density which will give worst exposure of population. The evaluated model can be applied for rational management of any canyon of the city to improve air quality.

#### **4. Photos with caption**



**Special Guest Lecture by Dr. Awkash Kumar 16.9.2023** Chat Files Details

Recording  
Sonal\_Tawde  
50m 53s

This recording is set to expire. View or change the expiration date [here](#). [Learn more](#)

## 5. Notices/ Letter of Communication

 **B. K. Birla College (Autonomous), Kalyan**  
**Department of Environmental Sciences**  
celebrates  
**The International Day for the Preservation of Ozone Layer**  
**(World Ozone Day)**  
Special Guest Lecture by  
  
**Dr. Awkash Kumar**  
CEO and Founder  
Sustainable Approach for Green Environment (SAGE)  
**Topic: Evaluation of Control Strategies for Urban Freeway**  
Date : Saturday, the 16<sup>th</sup> September 2023  
Time: 11.00 am to 12.30 pm  
Link for the lecture: 



# B. K. Birla College of Arts, Science & Commerce, Kalyan

**Empowered Autonomous Status (2023 - 2032)**

(Conducted by Kalyan Citizens' Education Society)

Affiliated to University of Mumbai

'College of Excellence' status by UGC (2015 - 2020)

Reaccredited by NAAC (3<sup>rd</sup> Cycle) with 'A' Grade (CGPA - 3.58) (2014 - 2023)

ISO 9001: 2015 Certified

**AQAR 2023-24**

1. Summary						
Meeting title	Special Guest Lecture by Dr. Awkash Kumar 16.9.2023					
Attended participants	31					
Start time	9/16/23, 11:12:03 AM					
End time	9/16/23, 6:37:37 PM					
Meeting duration	7h 25m 33s					
Average attendance	58m 50s					
2. Participants						
Name	First Join	Last Leave	In-Meeting Duration	Email	Participant	Role
Sonal_Tawde	9/16/23, 11:12:12 AM	9/16/23, 6:37:37 PM	7h 25m 24s	sonal.tawde@	sonal.tawde	Organiser
Yashlesha Shiris	9/16/23, 11:15:05 AM	9/16/23, 12:23:09 PM	1h 8m 4s			Presenter
Shailesh	9/16/23, 11:16:28 AM	9/16/23, 2:28:35 PM	3h 12m 6s			Presenter
Srushti	9/16/23, 11:18:12 AM	9/16/23, 12:23:05 PM	1h 4m 53s			Presenter
Baljit kaur	9/16/23, 11:18:42 AM	9/16/23, 12:23:14 PM	1h 4m 31s			Presenter
Sonali Asardohk	9/16/23, 11:20:18 AM	9/16/23, 11:53:54 AM	13m 35s			Presenter
Rutuja	9/16/23, 11:20:39 AM	9/16/23, 12:19:35 PM	58m 56s			Presenter
Saurabh Hogade	9/16/23, 11:20:59 AM	9/16/23, 12:24:45 PM	1h 3m 45s			Presenter
Madhuri Desai	9/16/23, 11:21:05 AM	9/16/23, 12:26:45 PM	1h 5m 40s			Presenter
Maverick	9/16/23, 11:21:30 AM	9/16/23, 12:46:07 PM	1h 24m 37s			Presenter
Kshitija	9/16/23, 11:21:40 AM	9/16/23, 11:26:58 AM	5m 17s			Presenter
Siddharth Ganai	9/16/23, 11:21:41 AM	9/16/23, 11:34:33 AM	12m 51s			Presenter
Sayali Rahatwal	9/16/23, 11:22:08 AM	9/16/23, 12:27:15 PM	1h 5m 6s			Presenter
Chetan Yadav	9/16/23, 11:23:05 AM	9/16/23, 12:27:50 PM	1h 4m 44s			Presenter
https://teams.m	9/16/23, 11:25:42 AM	9/16/23, 11:33:15 AM	7m 32s			Presenter
Kavita Jadhav	9/16/23, 11:28:08 AM	9/16/23, 12:19:25 PM	51m 16s			Presenter
Dr. Awkash Kum	9/16/23, 11:30:38 AM	9/16/23, 12:22:52 PM	52m 14s	awkash@tear	awkash@t	Presenter
Akshada Gaikwa	9/16/23, 11:31:59 AM	9/16/23, 12:26:53 PM	54m 53s			Presenter
Akanksha Chanr	9/16/23, 11:34:39 AM	9/16/23, 12:26:07 PM	51m 27s			Presenter
deepika	9/16/23, 11:36:44 AM	9/16/23, 11:39:34 AM	2m 50s			Presenter
22-23_M.Sc._E.V	9/16/23, 11:36:47 AM	9/16/23, 12:23:03 PM	46m 16s	3864443@bkb	3864443@	Presenter
Dakshata Gauta	9/16/23, 11:36:55 AM	9/16/23, 12:05:05 PM	28m 9s			Presenter
sayali sonavane	9/16/23, 11:37:02 AM	9/16/23, 1:28:32 PM	1h 51m 30s			Presenter
Aditi Patil	9/16/23, 11:37:23 AM	9/16/23, 12:23:09 PM	45m 45s			Presenter
Kahitija Nakhwa	9/16/23, 11:41:21 AM	9/16/23, 11:50:00 AM	8m 39s			Presenter
Pranali Sawant	9/16/23, 11:42:19 AM	9/16/23, 12:34:41 PM	52m 22s			Presenter
Kshitija	9/16/23, 11:50:44 AM	9/16/23, 12:30:10 PM	38m 10s			Presenter
Shrutik Karande	9/16/23, 12:17:29 PM	9/16/23, 12:17:56 PM	26s			Presenter



# B. K. Birla College of Arts, Science & Commerce, Kalyan

**Empowered Autonomous Status (2023 - 2032)**

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*ISO 9001: 2015 Certified*

**AQAR 2023-24**

## 6. Outcome

- Students got an insight of Air Pollution Modelling.
- Students understood about the application of OSPM and its capability to handle specific meteorology and dispersion conditions.
- The prediction of concentration by OSPM and its comparison with observed concentration of pollutants

Signature

Dr. Sonal Tawde

In charge, Department of Environmental Sciences



**1. Details of the events :**

Year	Name of the event	Name of the department	Date	Venue	No. of students participated
2023-2024	One day workshop on Making of Eco- friendly Ganesh idol making	Environmental Sciences	12/9/2023	4 <sup>th</sup> floor, IT building	<b>78</b>

**2. Objective :**

1. To spread awareness among the students to reduce water pollution during festival season.
2. To minimize carbon footprint & prioritizing sustainability.

**3. Report :**

Department of Environmental Sciences, B. K. Birla (Empowered Autonomous) College of Arts, Science and Commerce, Kalyan organized one day workshop on Eco-friendly Ganesh Idol making on 12<sup>th</sup> September 2023.

Dr. Vandana Gupta welcomed all the participants and stated that the workshop is an attempt to make society aware about environmental pollution caused by plaster of paris sculpture of Ganesha and opt for ecofriendly idols. The workshop began with an interactive talk on the concepts of 'recycling and reusing'. During the session, young attendees also realised that man must return responsibly what is borrowed from nature. The discussion was followed by an elaborate demonstration of idol making.

Mr. Shailesh Mathpati, student of M. Sc. II Environmental Sciences demonstrated the making of Ganesh idol using clay (Shadu Mati). The students observed vigilantly and learnt the correct way of cutting, holding, and moldings the clay to form an idol. Close attention was given to the basic structure but the students had the freedom of decorating the idols with ornaments and accessories as per their creativity and imagination.

Students actively participated in this workshop learnt basic skills of making idol and they really enjoyed a lot. At the end, they took the Ganesh idol with them.

**4. Photos**



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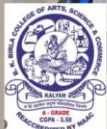
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*ISO 9001: 2015 Certified*

**AQAR 2023-24**



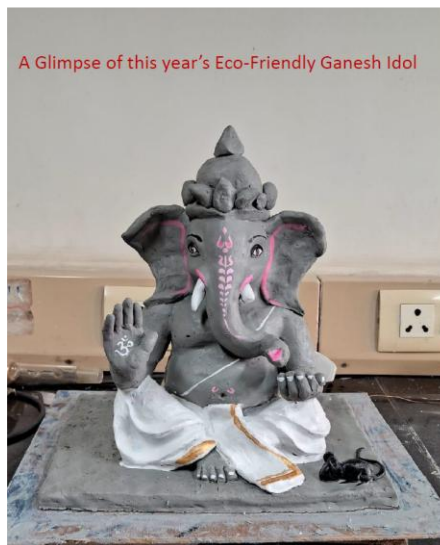
B.K. Birla College  
Department Of Environmental Sciences  
12.09.2023 13:32  
19.24754, 73.14693  
64WX+CVQ, Gauripada, Kalyan, Maharashtra 421301



B.K. Birla College  
Department Of Environmental Sciences  
12.09.2023 14:50  
19.24757, 73.14701  
64WX+CVQ, Gauripada, Kalyan, Maharashtra 421301



## 5. Letter of Communication



**B. K. Birla College (Autonomous), Kalyan**

**Department of Environmental Sciences**

and

**Green Club**

celebrate

## Eco Friendly Ganesh Festival

We cordially invite all to seek the blessings of  
**Ganpati Bappa.**

Venue - Department of Environmental Sciences,  
4<sup>th</sup> Floor, IT Building

Date - September 19<sup>th</sup> to 20<sup>th</sup> September 2023

Time - 9 a.m. to 3 p.m.

## 6. Outcome:

The participants understood the significance of celebrating the festivals in an ecofriendly manner and enjoyed making Ganesh idol.

*Dr. Sonal Tawde*

Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences

**1. Details of the event :**

Year	Name of the event	Name of the department	Date	Venue	No. of students participated
2023-2024	Celebration of Eco- friendly Ganesh Festival.	Environmental Sciences	19/9/2023 – 20/9/2023	4 <sup>th</sup> floor, IT building	-

**2. Objective:**

To promote celebration of festival in an ecofriendly manner.

**3. Report:**

Department of Environmental Sciences, B. K. Birla (Empowered Autonomous) College of Arts, Science and Commerce, Kalyan on the occasion of “Ganesh Chaturthi” celebrated the festival in an ecofriendly manner. The students of the department used waste materials for decoration. The murti was made of Shadu mati. In the two days of the festival (19<sup>th</sup> and 20<sup>th</sup> September 2023), students and staff from different departments visited the place to seek the blessings of Lord Ganesha.

**4. Photos**







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AQAR 2023-24

## 5. Outcome:

- **Promotion of Sustainable Practices:** Using sustainable materials for Ganpati idols promotes eco-conscious practices during the festival and in the wider context of daily life. It encourages individuals and communities to make sustainable choices in various aspects of their lifestyles.
- **Reduced Environmental Footprint:** The production and disposal of eco-friendly materials have a significantly lower environmental footprint than non-biodegradable alternatives like Plaster of Paris (POP) and synthetic paints. This reduction in environmental impact is crucial for preserving the planet's health.
- **Protection of Aquatic Ecosystems:** Eco-friendly idols, typically made of clay, paper mache, or other biodegradable materials, do not harm aquatic ecosystems. They break down naturally, leaving no toxic residue. This helps protect the health of rivers, lakes, and oceans, which are crucial for biodiversity and human survival.
- **Promotion of Eco-conscious Immersion:** Communities that choose eco-friendly idols also tend to promote eco-conscious immersion practices. They encourage using artificial tanks or designated immersion sites, which help contain any potential environmental impact and keep water bodies cleaner.
- **Education and Awareness:** Eco-friendly celebrations raise awareness about the importance of preserving water bodies and the environment. This education leads to more responsible behavior among devotees and the general public.

Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences



## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### 1. Details of Event

Year	Name of Event 1	Name of Department	Date	Place/Venue	No. of Students Participation
2023	Bird Week	Zoology and Environmental Sciences	05 <sup>th</sup> November to 11 <sup>th</sup> November	<ul style="list-style-type: none"><li>• B. K. Birla College Campus</li><li>• Gandhari Bridge</li></ul>	740 (College students + Schools Students)

### 2. Objectives

- The Bird Week aims to increase awareness amongst the young students about the importance of birds in our ecosystems, their role in pollination, seed dispersal and niche in maintaining the food chain/ food web.
- We wish to provide** educational opportunities for the students to learn more about bird species, behaviours, and their importance through the eminent lectures of renowned ornithologists.
- We wish to promote the conservation of bird species, especially those that are endangered or facing threats such as habitat loss, pollution, and climate change.

### 3. Report

#### Day 1- 5<sup>th</sup> November 2023: Opening of Bird Week

Theme: Birding For All

Invited Lecture of Mrs. Sumedha Avinash Korgaonkar, Alumna, Department of Zoology, B. K. Birla College & Eminent Wildlife Research Scholar, Wildlife Research Institute Dehradun, India. The programme was followed by Screening of Interview 'Jangalcha Dene' (<https://www.youtube.com/watch?v=Lb2dopK50U4>) of Shri Maruti Chitampalli, Former Forest Officer and Naturalist, Wildlife conservationist and writer, on the occasion of his birthday on 5th November. A workshop was organised on bird feeder making. Student volunteers demonstrated the making of bird feeder from discarded and waste materials. It was planned to install the bird feeders at different places in the college campus. 104 Students participated in Lecture and Workshop.

#### Day 2- 6<sup>th</sup> November 2023:



Invited Lecture on 'Bird Behaviour' by renowned Ornithologist Dr. Raju Kasambe, Assistant Director Education, Conservation Education Centre (CEC) at Bombay Natural History Society, Mumbai. 102 Students were present for the lecture.

Dr Kasambe focused on bird behaviour, specifically foraging, breeding, and communication. Dr. Kasambe, a prolific author and researcher, provided insights into various methods of self-cleaning and bathing used by birds, including dust bathing, water bathing, dew drop bathing, and anting. The lecture also explored the phenomenon of brood parasitism, with the cuckoo serving as an example. Dr. Kasambe discussed the feeding behaviour of birds, highlighting food hoarding, food acquisition through following other predators, and different feeding habits such as omnivores, piscivores, and granivorous birds. The lecture concluded with an examination of mating and breeding behaviour, including different familial structures like monogamy and polygamy.

Bird feeders were made by students and installed at various places on campus to attract birds. Nature Photography competition was organised by Department of Environmental Sciences 47 Students participated in the Competition.

**Day 3- 7<sup>th</sup> November 2023:** Students were guided to for the completion of Greeting Card making in B.K. Birla Public school, Railway school, Kalyan, Poddar Brio international school, Ambernath and Patel School Ambernath. Students from BKBCCK presented on topics like 'Bird conservation' as awareness activity in Patel School and Poddar school. 06 Different Schools for more than 540 students were participate in greeting card making competition.

**Day 4- 8<sup>th</sup> November 2023:** Greeting Card Making Competition at Ravindra High School, Titwala, Elocution Competition and Rangoli Making Competition at BKBCCK. 'Elocution Competition' was organized by Department of Environmental Sciences and Rangoli Making competition was organized by Department of Zoology. Total 22 students participated in the events.


**Day 5- 9<sup>th</sup> November 2023:** 'Greeting Card Making' competition was organized by Department of Environmental Sciences and Story Writing Competition 'Word it all' and Bird Feeder Making Competition were organized by the Department of Zoology. 29 students participated in the competition.

**Day 6- 10<sup>th</sup> November 2023:** Bird Watching Trail was organized at Ulhas River Gandhari at 7.00 am Dr. Kantilal Nagare, Dr. Sonal Tawde and Dr. Dinesh Wanule accompanied students. Mr. Pravin Vishe and Mr Narendra Bhiwandikar were field experts who guided the students and staff along the creek area for observing and identifying various birds through scope and gave very important information about birds to the students. Selected 20 Students participated in bird watching.

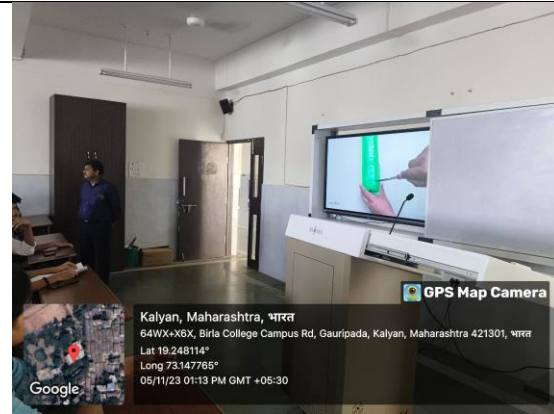
**Day 7- 11<sup>th</sup> November 2023:** Dr. Manas Manjrekar, Deputy Director, Mangrove Cell, Department of Forest, Government of Maharashtra delivered Invited lecture on 'Conservation & Management of Coastal and Marine Biodiversity in Maharashtra - With a Special Focus on Avian Biodiversity'. After the lecture results of various competitions were declared and the bird week was announced closed. 40 Students were present for the Lecture.

4. Photos with caption

**Day 1**



Invited Lecture of Mrs. Sumedha Avinash Korgaonkar, Alumna, Department of Zoology, B. K. Birla College & Eminent Wildlife Research Scholar, Wildlife Research Institute Dehradun , India.



Students demonstrating How to make bird feeder

**Day 2**



Invited Lecture on 'Bird Behaviour' by renowned Ornithologist Dr. Raju Kasambe, Assistant Director Education, Conservation Education Centre (CEC) at Bombay Natural History Society, Mumbai.

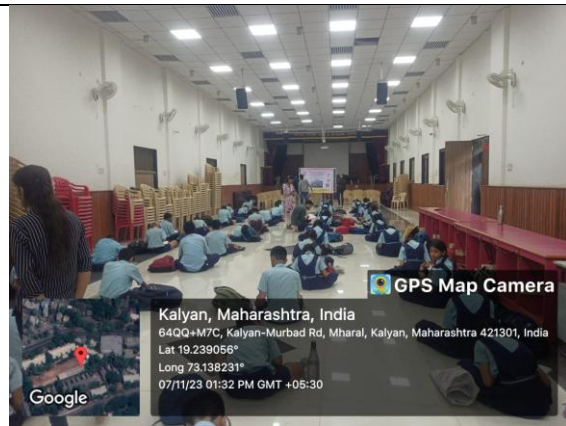


Bird feeders prepared by students were installed at different places in campus







Nature Photography Competition

Day 3



Greeting card making at B. K. Birla Public School

Greeting card making at Central Railway

 <p>Konkan Division, Maharashtra, India          Bldg. No. 74 shop no. 5, Poddar Samruddhi Evergreen, Poddar Brio School Saape,          Long 73.251298°          Lat 19.136936°          07/11/2023 11:31 AM</p>	 <p>Konkan Division, Maharashtra, India          Bldg. No. 57/001, Poddar Samruddhi Evergreen, Poddar Brio School Saape, Badlapur-Neral Highway,          Long 73.251567°          Lat 19.137196°          07/11/2023 12:02 PM</p>
<p>Greeting card making at Podar School</p>	
<p>Day 4</p>	
 <p>कल्याण, महाराष्ट्र, भारत          निनावी रस्ता, गौरीपाडा, कल्याण, महाराष्ट्र 421301, भारत          Lat: 19.248327°          Long: 73.147564°          08/11/23 04:13 PM GMT +05:30</p>	 <p>कल्याण, महाराष्ट्र, भारत          निनावी रस्ता, गौरीपाडा, कल्याण, महाराष्ट्र 421301, भारत          Lat: 19.248327°          Long: 73.147564°          08/11/23 04:15 PM GMT +05:30</p>
<p>Rangli making Competition</p>	

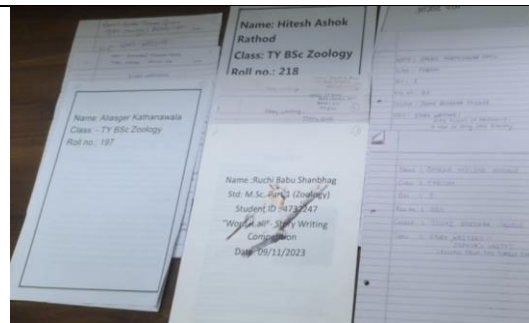
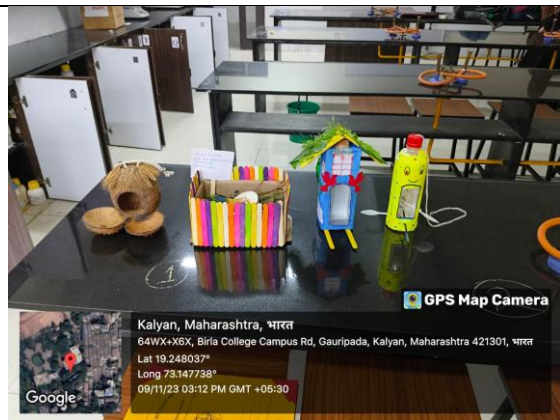


**Greeting Card Making Competition**



**Greeting card making competition at Ravindra High school Titwala**

**Day 5**





Bird feeder made by students for Bird feeder making competition

Story Written by students for Word it all competition

Day 6



Bird watching trail at Ulhas River Gandhari

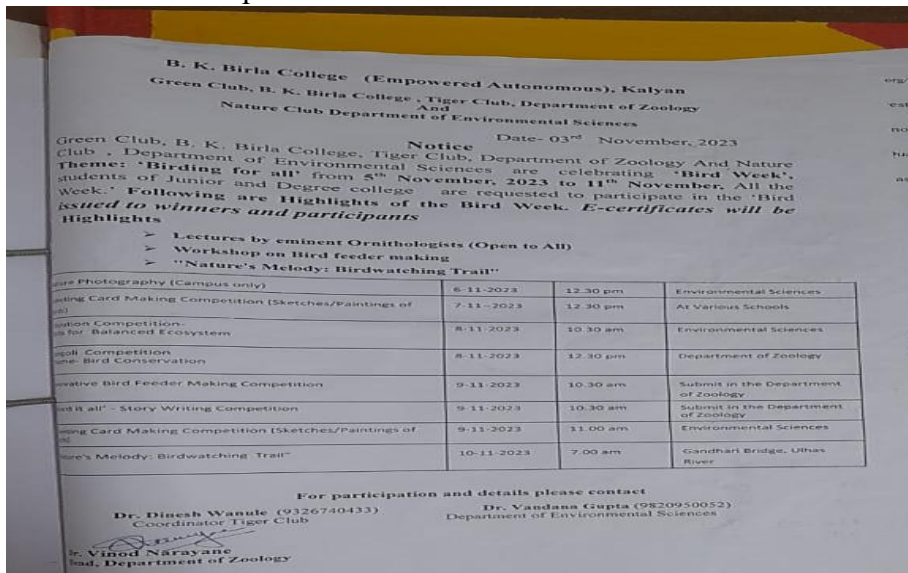
Daty 7



7 Dr. Manas Manjrekar, Deputy Director, Mangrove Cell, Department of Forest, Government of Maharashtra Delivered Invited lecture on 'Conservation & Management of Coastal and Marine Biodiversity in Maharashtra - With a Special Focus on Avian Biodiversity'.

Winners of various competitions

5. Photos with caption of Notices/ Letter of Communication



6. Outcome



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**AQAR 2023-24**

- **Increased Awareness:** The competition led to increased awareness among students about the significance of wildlife conservation and the threats faced by various species.
- **Education:** Participants gained knowledge about wildlife, ecosystems, and conservation strategies.
- **Creative Expression:** Participants got the opportunity to express their creativity and artistic skills while conveying messages about wildlife conservation.
- **Advocacy and Action:** The competition inspired participants to become advocates for wildlife protection and take concrete actions to support conservation efforts.

Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences



## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### 1. Details of Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	Alumni Lecture by Mr. Amit Bhalerao	Environmental Sciences	9 <sup>th</sup> December 2023	Room No. 409 Department of Environmental Sciences	25 Students

### 2. Objectives

- To explain the to the students the importance of doing additional short term courses to enhance CV.
- To explain the procedure for securing jobs at government sectors

### 3. Report

- Mr. Amit Bhalerao passed out in the year 2019-20 and cleared NET exam in November 2020
- He worked at Environment and Climate Change Department, Government of Maharashtra. Later he joined TERI, Mumbai as Research associate for one year. Later he was appointed at Climate Adaptation Expert, State Climate Action Cell, GoM.
- Mr. Amit explained to the students the importance of obtaining first class for any further studies and securing job at any reputed organization.
- He explained about the ample opportunities which would be coming up in the next five years and thus the bright future for students of Environmental Sciences. He made an appeal to all students present to get the maximum knowledge from the college and pursue short term courses continuously during these two years.
- Those pursuing research should be doing small projects in eh laboratories from day one, with the help of the faculty from the Department.
- He also mentioned how opportunities were also blooming in the research institutes specially for Climate change and pollution experts.
- Even in the private sector and consultancies, opportunities are springing upfor environmental students.
- He motivated the students to undergo small internships even if it was for fifteen days.

- Thus his motivation were well received by students and many put forth many questions to which Mr. Amit answered with live examples from his experience.

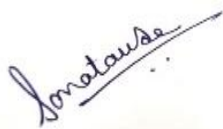
#### 4. Photos



#### 5. Outcome

- The current batch students were highly motivated by the alumni lecture.
- The students were encouraged to take up online courses on SWAYAM platform

Signature



Dr. Sonal Tawde

In charge, Department of Environmental Sciences



## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### 1. Details of the Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	Visit to Thane Creek Flamingo Sanctuary, Airoli	Environmental Sciences	2 <sup>nd</sup> February 2024	B. K. Birla College	15

### 2. Objective:

- To understand Mangrove Ecosystem.
- To gain detailed information about Flamingoes as a migratory bird.

### 3. Report

Mangrove and marine environment of Thane Creek Flamingo Sanctuary, Airoli region plays a vital role in supporting variety of avifauna and marine aquatic fauna and provides healthy environment for human beings creating oxygen releasing pockets in the region. It serves as important eco-system conserving and balancing the marine food chain and attracting huge biodiversity and is instrumental in providing many eco-system services such as breeding grounds for marine aquatic fauna and marine fishery, which is an important source of livelihood for the local people and source of food for the people in the area. The high species diversity of birds in Thane Creek Flamingo Sanctuary and presence of many globally important species along with the rich abundance of Lesser Flamingos and Greater Flamingos makes this area globally significant and the site has also been categorized as an Important Bird Area (IBA). Secondly, it is an important part of the wetland complex of the Central Asian Flyway of the birds. The Thane Creek Flamingo Sanctuary is a marine protected area declared under Wildlife (Protection) Act, 1972. The key species of this Sanctuary being flamingo and hence the name. On the occasion of World Wetland Day, a visit was organized at Flamingo Bird Sanctuary, Airoli. Around 14 students attended the visit. Dr. Vandana Gupta accompanied the students. The entire visit was scheduled in two sessions.

Session 1: Visit to Interpretation Zone where all the details of the area was explained by the staff member.

Session 2: Mangrove trail followed by boat ride

*Avicennia marina* was the dominant mangrove and most abundant species throughout the creek. Two variant of *Avicennia marina* namely *Avicennia marina var marina* and *Avicennia marina var accutissima*. Similarly, other species that were reported during the study comprised of *A. officinalis*, *Sonneratia apetala*, *Sonneratia alba*, *Bruguiera cylindrica* *Ceriops Tagal*,


*Excoecaria agallocha* , *Aegeiceras corniculatum*, *Rhizophora mucronata*. Associate mangrove species namely *Acanthus illicifolious* and *Salvadora persica* were also found abundant in some patches along the creek. During the boat ride of around one hour, flocks of Flamingoes of both varieties were observed.

4. Photos



5. Outcome

The mangrove ecosystem was well understood by the students. The sighting of flock of Flamingoes was a visual treat to all the participants.



Dr. Sonal Tawde

Incharge, Dept. of Environmental Sciences



## DEPARTMENT OF ENVIRONMENTAL SCIENCES

### Details of Event

Year	Name of Event	Name of Department	Date	Place/Venue	No. of Students Participation
2023-24	Pre Pravah Lecture by Mrs. Radhika Buwa	Environmental Sciences	13 <sup>th</sup> February 2024	Room No. 409  Department of Environmental Sciences	31 Students

### 2. Objectives

- To explain importance of conducting a green audit for businesses and organizations.
- To make students understand the comprehensive assessment of a business's environmental impact, including its energy usage, waste management, and carbon footprint.
- To understand sustainability initiatives that businesses can implement.

### 3. Report

- Department of Environmental Sciences invited Mrs. Radhika Buwa for a special lecture on '*Green Audit*'. Mrs. Radhika Buwa has completed M.Sc. (2006), from University of Mumbai and M. Tech Environment (2011), from North Maharashtra University. She is a Certified Lead Auditor for ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018. Mrs. Radhika has a Consulting service under name of Avani Consulting. She is associated with many NGOs for green initiatives and has Audited more than 50 companies and 250 man-days. She is a team member for various Green audits of colleges and handled many projects for carbon credit on society and corporate offices. She has successfully completed many 'Green Building' projects and Hazardous Waste Audits.
- According to Mrs. Radhika, Green audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of institution environment. It was initiated with the motive of inspecting the effort within the institutions whose exercises can cause threat to the health of inhabitants and the environment. The green audit provides a direction to improve the structure of environment which include several factors A green audit, also known as an





environmental audit, is a systematic assessment of an organization's environmental performance. It aims to identify areas where the organization can improve its environmental impact and reduce its risks. Green audits can be conducted by internal or external auditors, and they can cover a wide range of areas, including:

- Energy use
- Water use
- Waste generation.
- Air emissions
- Hazardous materials use
- Land use.
- The results of a green audit can be used to develop an action plan to improve the organization's environmental performance. This action plan may include:
  - Setting environmental goals
  - Implementing new policies and procedures
  - Investing in new technologies
  - Training employees

Types of green audit:

There are different types of green audits, each with its own focus. Some common types of green audits include:

1. Compliance audits: These audits assess whether an organization is complying with environmental regulations.
  2. Management system audits: These audits assess whether an organization has an effective environmental management system in place.
  3. Performance audits: These audits assess an organization's environmental performance against specific goals or benchmarks.
  4. Life cycle assessments: These audits assess the environmental impact of a product or service throughout its entire life cycle, from raw material extraction to disposal procedures.
- Mrs. Radhika also explained the Benefits of Green Audit:
- Preparation of Environmental management plan.
  - Assessment of environmental input and risks.
  - Identifying areas of strength and weakness for improvements.
  - Evaluation of pollution control.
  - Verification of compliance with laws.

- Assuring safety of plant, environment & human beings.
- Enhancement of loss prevention, manpower development and marketing, budgeting for pollution control, waste prevention, reduction, recycling and reuse.
- Providing an opportunity for management to give credit for good environmental performance.

#### 4. Photos with caption



#### 5. Notices/ Letter of Communication



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**AQAR 2023-24**



**B. K. Birla College, Kalyan**  
(Empowered Autonomous Status)  
**Pravah 2024**  
**Department of Environmental Sciences**  
organizes  
**Special Guest Lecture**  
(as Pre-Pravah Activity)  
by  
**Mrs. Radhika Parag Buwa**  
Certified Lead Auditor, Avani Consulting  
(ISO 9001: 2015, ISO 14001: 2015, ISO 50001: 2018)  
**Topic: Green Audit**  
on Tuesday, the 13<sup>th</sup> February 2024  
Time: 12.00 noon to 1.00 pm  
Venue: Room No: 409, 4<sup>th</sup> Floor, I.T. Building, BKBCK

## 6. Outcome

- Students got an insight of the various components of a green audit, including energy consumption, water usage, waste management, and transportation.
- Students understood about the importance of measuring and tracking these metrics over time to ensure that progress is being made towards sustainability goals.

Signature

Dr. Sonal Tawde

In charge, Department of Environmental Sciences