

## STRENGTHENING ENVIRONMENT EDUCATION THROUGH PROJECT BASED-LEARNING AND ACTION IN JUNIOR COLLEGES OF PANVEL



# STATUS REPORT OF ENVIRONMENT EDUCATION IN JUNIOR COLLEGES OF PANVEL

CEE

Centre for Environment Education

#### **Submitted to**

Secretary,

Mumbai Metropolitan Region Environment Improvement Society,

6th floor, Planning Division, MMRDA new building,

BandraKurla Complex, Bandra (East), Mumbai

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#### **Declaration**

We hereby declare that the Environmental Education Status Report of Junior Colleges in Panvel is a record of an original work carried out by CEE (Centre for Environment Education) which is based solely on the assessment of Primary data provided by various government and private environment teachers in various colleges on Panvel municipal corporation and observations recorded by CEE during various field visits, consultations, interviews and discussion with concerned teachers. The references were taken from various published material and acquired through reliable sources.

#### Acknowledgement

The project titled "Strengthening Environment Education through Project based-learning and Action in Junior Colleges of Panvel" for Mumbai Metropolitan Region Environment Improvement Society Authority has been a memorable experience, through the cooperation and support extended by officials of MMREIS.

CEE would like to express its thanks to Shri. Gangadhar Mhamane, Education Director, Maharashtra State Secondary & Higher Secondary Board for his encouragement and guidance. CEE would especially like to acknowledge the constant support received from Smt. Chaskar, Block Education Officer, Panvel as well as the valuable guidance of the Shri. Sabale, Block Extention Officer, Pavel while formulating the ESR.

We thank the officials from Panvel Municipal Corporation, viz. Shri. Sudhakar Shinde, Municipal Commissioner, & Smt. Sandhya Bavankule, Asst.Commissioner of Panvel for their insightful discussions and valuable comments.

CEE's team expresses its sincere thanks to environment teachers Shri. Pawar of SES Night College, Smt. Nisha Yadav of Agrasen Junior College, Mr. Waghmare of KES Junior College, Mr. Thakur of Balaram Parshuram Patil Junior College, EVS Teachers of Mhatre Junior College & Modern College and All Environment Teachers in Panvel Municipal Corporation for extending full support and cooperation and also for sharing information and data for the study of environment education status in junior colleges.

CEE is grateful to all the other officials from various concerned departments of government, their secretarial staff, participants of stakeholder discussions, and teachers who provided information and data, timely help and excellent cooperation.

Finally the authors thank each and every individual who have contributed to collate this report successfully.

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#### **BACKGROUND**

Environment Education is created as a separate subject with a weight age of 50 marks at the Higher Secondary stage (Junior College). The subject was introduced in Standard XI in the academic year 2012-13 and in Standard XII in the academic year 2013-14

Textbooks have been developed by the Maharashtra State Board of Secondary and Higher Secondary Education for Standards XI and XII. The textbooks are based on the Handbook for Environment Education developed by NCERT. The textbooks have a number of classroom-based activities. In addition, Journal Assignments and seminars are expected to be done to make learning and assessment more feasible in very large class sizes. The student's attainment out of 50 marks is reflected on the standard XII marksheet and added to the grand total to compute the percentage. The assessment of the EE subject has recently been changed from college level assessment to partial assessment by an external examiner for Standard XII.

#### UNDERSTANDING EVALUATION PROCESS OF EE IN JR. COLLEGE

As per Board of Higher Secondary Education (HSC) following pattern of Environment Education assortment is followed at 11th and 12th standard level. the subject is for 50 marks and it has been made compulsory to pass the subject.

				Theory		Practica	I / Oral / Proj	ject	N 4 i
	r. o.	Subject	No. Of	Duration	Marks	No of	Duration	Mark	Maximum Mark
IN	0.		Paper	(Hours)	Marks	Practical	(Hours)	S	IVIALK
		Environment				Seminar or Journal		il	
Environment Education		One			Assignme	nt Project wo	rk 50	50	
		Education				20 + 30			

#### Marking system

Particular	Internal Examiner	External Examiner	Total Marks
Project Work	20	10	30
Seminar & Journal	10	10	20
Total	30	20	50

#### **Project Marking System**

Project					
Evaluation criteria of Internal	examiner	Evaluation criteria of External	Evaluation criteria of External examiner		
Project Selection	2	Project Report Presentation	5		
Objective	3				
Importance	2				
Methodology	3				
Analysis	2	Oral Exam	5		
Explanation	3				
Conclusion 3					
Presentation of Project	2				
Total	20	Total	10		

#### **Seminar Marking System:**

Project			
Evaluation criteria of Internal examiner		Evaluation criteria of External	examiner
Reason for topic selection and Report writing	5	Seminar Report	5
Presentation of individual report and presentation if participating in other groups (at least two)	5	Oral Examination	5
Total	10	Total	10

#### **Journal Marking System:**

Journal	Journal				
Evaluation criteria of Internal exam	iner	Evaluation criteria of External Examiner			
Journal structure (student's understanding, etc)	5	Journal Analysis Assessment	5		
Completion Criteria (at least 5 journal work completion)	5	Oral Examination	5		
Total	10	Total	10		

#### To register the Evaluation of Environmental Education subject, the design of the registrar should be as follows

			Internal Examiner			External Examiner			
Sr. No.	Roll No.	Examination Seat Number	Seminar or Journal work	Project	Total A	Seminar or Journal work	Project	Total B	Total A+B
			10	20	30	10	10	20	50

(Source: Circular of The Maharashtra State Board of Secondary & Higher Secondary Education, Pune on dated 24/7/2015)

#### **MEETING AND DISCUSSIONS**

Following preparatory meetings were done by CEE.

#### MEETING WITH EDUCATION DEPARTMENT

In the month of November 2017, a meeting was held with Mr. Gangadhar Mhamane, the chairman of the Maharashtra State Board of Secondary and Higher Secondary Education, Pune, to discuss the current scenario of Environment Education in and around MMR region along with a brief introduction to MMREIS. The role and responsibilities of CEE and its efforts in strengthening EE in junior colleges of Panvel was also highlighted. The chairman appreciated the project and issued the letter of support to Divisional Asst Director of Mumbai.

The Panvel Education Officer Smt. Chaskar Madam and Education Extension Officer Shri. Sabale were briefed about the project and its intervention in strengthening EE education in junior colleges. A quick summary of the work carried out by CEE with the teachers was provided.

#### MEETING WITH MR. ANSHUL AGARWAL

Mr. Anshul at MMREIS was briefed about background study and ongoing work.

- Follow up with education director for support letter.
- Listing of Junior Colleges In Panvel Municipal Corporation.
- Understanding of exam evaluation system for class X & XI.
- Understanding local specific challenges.

#### MEETING WITH SMT. SMITA DALVI MADAM, PILLAI ENGINEERING COLLEGE

Smt Smita Dalvi worked on traditional water pond in Panvel with Heritage cell of MMREIS. Acc to Smt. Dalvi, rapid urbanization led to ponds being neglected raising a need to educate and generate awareness among the students in the study of urban environment

#### **ABOUT PANVEL**

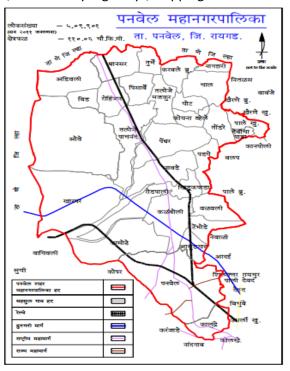
#### A city rich in nature, history and culture

Panvel is a fast-growing urban area close to Mumbai, enclosed by highways, shipping and industrial

zones. The major reason of its prosperity was its trading routes which included land and sea. The routes were developed during the Mughal period and later developed by Portuguese, British and Marathas. The city was known for its rice market.

Municipal Corporation is the governing body of the city of Panvel in Raigad district. In 2016 Maharashtra State cabinet decided to elevate Panvel Municipal Council to Municipal Corporation.

Panvel Municipal Council was formed on August 25, 1852, as the first municipal council in the country. The initial notification for converting Panvel Municipal Council to Municipal Corporation came in the year 1991 but was never finalized. After rapid urbanisation post-2000, Panvel Municipal Council was eventually upgraded to Municipal Corporation in 2016.



Panvel Municipal Corporation is the first Municipal Corporation in Raigad district, 9th in the Mumbai Metropolitan Region and 27th in the state of Maharashtra. The Municipal Corporation includes 29 revenue villages of Panvel taluka including Taloja, Kharghar, Kalamboli and Kamothe. (source: Wikipedia)

#### **JUNIOR COLLEGES IN PANVEL**

As of now, there does not exit a specific list of junior colleges under the education department. The administration of education department follows its own administrative structure for coordination, and is not under the Panvel Municipal Corporation. There are 33 junior colleges in Panvel Municipal Corporation. Out of which, 23 junior colleges are affiliated with secondary school board.

#### **VISIT STATUS OF JUNIOR COLLEGES**

Out of 33, visits were done in 31 junior colleges. In-depth interaction to understand the status of EE was done with 26 junior colleges, while 3 junior colleges refused to share any information. (Annexure 2: Status of field visit)

#### **SUMMARY**

The summary provide analysis of meetings and discussions with junior college teachers.

#### ALLOTMENT OF EE AS SEPARATE SUBJECT AND TEACHING PRACTICES

- 1. Teachers are accountable for students' performance in the core subjects as against external supervision in EE subject.. This leads to casual I approach towards EE teaching and treated as an additional burden
- 2. Teachers are using EE teaching time for their regular subjects
- 3. Rationale for giving EE subject is work load than capacity or interest of teaching EE. In a way EE is helping school management to complete work load than ensure quality EE
- 4. Respondent teachers believe that science and geography teachers are in better position to teach
- 5. Environment education through its projects provides a learning opportunity for students giving the freedom to carry out project work at their own pace and available time. This, though is a unique aspect of the subject is not fully valued by students. Mentoring teachers need to design teaching aids accordingly.
- 6. Teachers are confined due to limited time available to research about possible projects, address student queries, and project submissions, along with their core subject.

#### PROJECT UNDERTEKEN BY STUDENTS

- 1. Some teachers are giving EE projects, however, teachers agree that project information is based on internet than real life action, thus projects concentrating on a local issue, need to be incorporated into the syllabus.
- Environment education projects given, are such that students resort to Google and other
  methods for completing the task. The aim to carry out EE work is lost when this occurs and
  hence, the allotted projects need to be properly researched and students are oriented well on
  the given topic.

#### FINANCIAL AID REQUIREMENTS

- 1. Teachers felt a need of ample time and financial resources to undertake action based projects. In absence of such provision there is reluctance in taking up projects.
- 2. There is need to create enabling environment and support for teachers from school management in order to encourage student action base projects.
- 3. Lack of confidence and experience of teaching EE leads to only specific teachers eg. Science teachers preferred to take EE classes than teachers coming from other discipline. This also leads to undue pressure upon science teachers.
- 4. There is lack of intervention, monitoring and support from the education department.

#### RECOMMENDATION FOR HSC BOARD

- 1. It is recommended that HSC Board takes strict actions against non implementation of EE projects. This would lead to Jr. Colleges taking EE seriously as they take any other subject.
- 2. There is need to improve evaluation process, and its understanding. Teachers need to be oriented to efficiently evaluate the projects carried out by students. Also a feedback mechanism needs to be put in place for teachers to monitor the student's understanding and competency in the subject.
- 3. Internal Examiner and External Examiner are endorsing EE work on paper without objecting to non compliance. This is leading to in-action and casual approach towards EE teaching.
- 4. Projects concentrating on a local issue, needs to be incorporated into the syllabus.
- 5. Environment education being a compulsory subject for colleges, it is expected that teachers though dealing with another subject are well versed with environment education, and should acquire the necessary training and skills for the same.
- 6. The Jr. colleges have environment education as project based study and not theoretically examined, this results into students and teachers at times to undermine the subject value and sessions are thus not held.
- 7. Lack of knowledge of career opportunities in the field of EE, and environment as a whole leads to disinterest about the subject, thereby ignored by students.
- 8. Students need to start looking at EE as a serious subject and making students submit their project work directly to the board will aid in the process. It is also recommended that the individual project work be examined by any competent authority in the respective field.

#### THE CURRENT STATUS OF ENVIRONMENT EDUCATION IN JUNIOR **COLLEGES OF PANVEL**

#### 1) Are XI & XII Standard classes held regular?

(a) Regular

(b) Irregular

Sr. No.	Particular	No
1	Regular	26
2	Irregular	0
	Total	26

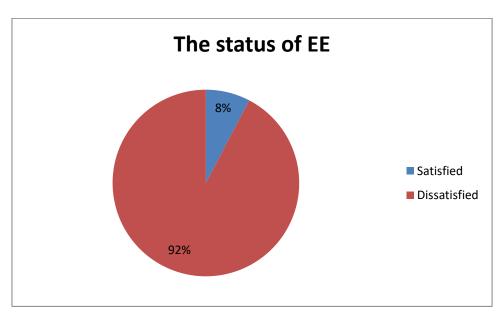
Analysis: Colleges schedule their classes on regular basis though almost 10-15% of students remain absent due to competitive exams or personal reasons.

#### 2) The status of Environment Education

(1) Satisfied

(2) Dissatisfied

Sr. No.	Particular	No.
1	Satisfied	2
2	Dissatisfied	24
	Total	26



Analysis: The current dissatisfaction among teachers and principals of junior colleges relating to environment education portraits urgent need to make interventions on priority basis towards strengthening EE

#### 3) Teaching time per division

Response: 2 Sessions per Week (As per education department)

Analysis: Communication with teachers revealed that time schedule by the board for EE, is being used up for core or extra teaching.

#### 4) What types of teaching methodologies are used for teaching environment subject:

Sr. No.	Particular	Responses
1	Classroom Teaching	All of them
2	Seminars	Occasionally

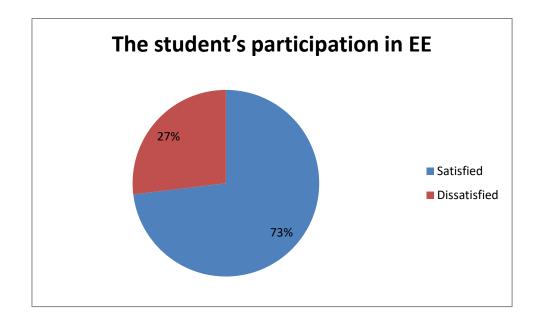
Analysis: All colleges prefer classroom teaching for EE and very few of them use different teaching methodology.

#### 5) The student's participation in Environment Education, as per teachers

(a) Satisfied

(b) Dissatisfied

Sr. No.	Particular	No.	
1	Satisfied	19	
2	Dissatisfied	07	
	Total	26	



Analysis: Considerable participation in EE activities, is seen among students.

#### 6) Any past experiences with environmental education?

(any background training, any other environmental education programme conducted in your classroom or with outside groups?)

Sr. No.	Particular	Response
1	We have not done anything	16
2	Tree Plantation, Cleanliness Drives	6
3	Presentation & Seminar	3
4	Field Visit	1
	Total	26

#### 7) What type of support would be most useful for you?

Priority	Type of Support
1	Regular demonstration oriented Training
2	Resource Material
3	Support in organizing field visit
4	Local specific action project ideas
5	Exhibitions & Competition (Information)
6	Special Thematic Camps
7	Guest Lectures

#### **MEETING WITH EE TEACHERS**

College Name	Name of EVS Teachers	Mobile No.
	Smt. RupaliWankhede	9619239920
A. S. C. Junior College	Smt. Arti More	8605053545
A. J. C. Julior College	Mr. Anil N Buva	9422382318
	Mr. AshayKanade	9881177268



College Name	Name of EVS Teachers	Mobile No.
BalaramParashuram Junior College	Smt. Thite Madam	9867231513
	Mr. PremnathPatil sir	9664924454
	Mr. Thakur Sir	9271932601



College Name	Name of EVS Teachers	Mobile No.
KPC Junior College	Smt. ChayaCheda	022 27746074
Ki e sumor conege	Smt. Harsha	9702121092



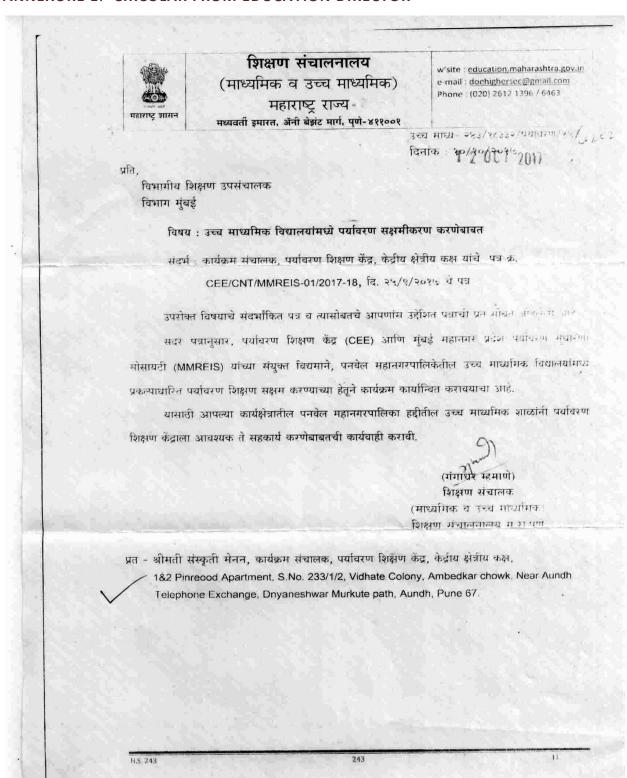
College Name	Name of EVS Teachers	Mobile No.
Sanjjay Gandhi Junior College	Mr. V. K. Kumbhar Sir	9222417707
Sangay Ganam samer conege	Mr. Mhatre Sir	9870080771



College Name	Name of EVS Teachers	Mobile No.
	Smt. Patil S. V.	9324820898
A. D. Mhatre Junior College	Smt Tandel K. M	9920400660
A. D. Wilder Sallior College	Mr. Patil K Y	9833349902
	Mr. Jawale	9702082479



#### ANNEXURE 1: CIRCULAR FROM EDUCATION DIRECTOR





No. MMR-ENV/SOC/5-2017/84/2017

Date: 28th September, 2017

#### TO WHOMSOEVER IT MAY CONCERN

In order to focus attention on the Environment Improvement issues in the Mumbai Metropolitan Region (MMR), the Mumbai Metropolitan Region Development Authority (MMRDA) has established the MMR-Environment Improvement Society (MMR-EIS). The Metropolitan Commissioner, MMRDA is the President of the MMR-EIS.

The Mumbai Metropolitan Region – Environment Improvement Society (MMR-EIS) is undertaking a project regarding "Strengthening Environment Education through project based learning and action in Jr. Colleges of Panvel", which would help to enhance effectiveness of Environment Education in standard XI and XII in the Mumbai Metropolitan Region and enable young people to take up high quality, relevant and locale specific environment related projects and studies.

This is to certify that M/s.Centre for Environment Education, Urban Programmes (CEE Urban), 1 & 2 Pinewood Apartment, S. No. 233/1/2, Vidhate Colony, Ambedkar Chowk, Near Aundh Telephone Exchange, Dnyaneshwar Murkute Path, Aundh, Pune-411 067, have been appointed for assessment and evaluation of E.E. status implementation, Teacher's training, workshops, etc. for this purpose. They plan to conduct surveys, documentation, interviews, etc. with the concerned persons/authorities.

We request you to cooperate and allow the representatives to carry out the work. In case of any queries please contact Ms. Uma Adusumilli, Chief, Planning Division, MMRDA on the following no. 26591237(O), 9821637475 (M).

Thanking You,

Yours Faithfully

Secretary

MMR-Environment Improvement Society

MUMBAI METROPOLITAN REGION - ENVIRONMENT IMPROVEMENT SOCIETY
7TH FLOOR, MMRDA BUILDING. BANDRA - KURLA COMPLEX. BANDRA (EAST). MUMBAI - 400 051. TEL: 2659 1267 - FAX : 91-022-2659 1264
E-MAIL: immthseis/@ginail.com " Website: www.mmreis.org.in"

#### **ANNEXURE 3: STATUS OF FIELD VISIT**

#### Status of field visit

Sr.	Nove of Later Callery C. Tarak	No of Visits & Contact Detail	Questionnaire
No.	Name of Junior College & Teachers		
1	Mr. Ramsheth Thakur Higher Secondary Vidyalaya,	2	Done
	Smt. Kalpana Manghate	9404081509	
	Smt. Pavitra Khandekar	8655473723	
2	DNYANJYOT Junior College, SEC-12 KHARGHAR, TQ- PANVEL	2	Done
	Smt. Magdum	9594787976	
	Donger diver	9702698340	
3	Harmony Public School & Junior College	1	No Response
4	K.P.C. Junior College of Science & Commerce, Sector 13, KHARGHAR,	3	Done
	Smt. Chaya Cheda	022 27746074	
	Smt. Harsha	9702121092	
5	MODERN S.P.M.S. Junior College, KHARGHAR, NAVI MUMBAI	3	Done
	Mr. Gawali	9967222606	
	Smt. Jadhav	9757270711	
6	Gokhale Education Society	3	Done
7	New City International School & Junior College	1	Done
	Mr. Yogesh Salunke		
	Mr. Anil Nataki	9029771047	
8	SATYAGRAHA Junior College KHARGHAR TQ PANVEL DIST RAIGAD	2	Done
	Smt. Vinita Suyawanshi		
	Smt. Sangita Jogdand	7208405210	
9	Convent Of Jesus & Mary Junior College	1	No Response
10	Vishwajyoti School		Not Visited
11	Sanjivani Junior College	2	Done
	Smt. TiruSarvahi	9029542943	
	Smt. Archana Bagal	9820428854	

Sr.		No of Visits &	Questionnaire
No.	Name of Junior College & Teachers	Contact Detail	
12	D.G.TATKARE Junior College, Kalamboli	2	Done
	Ms. Kalpana Raut	9819098722	
13	K. L E. Science & Commerce Junior College	1	No Response
14	ST.JOSEPH HIGH School & Junior College, Kamboli, TQ. PANVEL	2	Need to visit
15	Sudhagad Education Society`s Secondary & Higher Secondary School, KALMBOLI	3	Done
	Mr. Shailar	8097282259	
	Mr. Wagh	9020941506	
16	SANJAY GANDHI SMARAK High School & Junior College, Kalawadi.	2	Done
	Mr. V. K. Kumbhar	9222417707	
	Mr. Mhatre	9870080771	
17	M.EDU. Scociety's High School & Junior College, New Panvel	Not Visited	
18	Balaram Parshuram Patil Junior College	3	Done
	Smt. Thite	9867231513	
	Mr. Premnath Patil	9664924454	
	Mr. Thakur	9271932601	
19	MhatreVidyalaya and Junior College (9930114086)	2	Done
	Smt. Patil S. V.	9324820898	
	Smt. Tandel K. M	9920400660	
	Mr. Patil K Y	9833349902	
	Mr. Jawale	9702082479	
20	C.K.THAKUR Junior College , Panvel, Raigad	3	Done
	Mr. Prashant More	022 27458458	
	Mr. Gavade	80975625757	
21	BARNS Junior College Panvel	3	Done
	Mr. Shivdas Kamble		
	Smt. Mrunal Limaye	9869375078	

Sr.		No of Visits &	
No.	Name of Junior College & Teachers	Contact Detail	Questionnaire
22	SES Night Junior College	2	Done
	Mr. Pawar	9172342322	
23	N N PALIWALA Junior College	2	Done
	D. L Shivrame	9004982004	
24	Kokan Education Society	2	Done
	Mr. P A Patil	9619030225	
25	Kokan Education Society Girls Junior College	1	Done
	Mr. R H Nawale	9619030225	
26	Yakub Baigh Junior College	3	Done
	Mr. Hanif	022 2745253,	
	Wil. Halli	9323906470	
	Mr. Kazi	9869828954	
27	A. S. C. College	1	Done
	Smt. Rupali Wankhede	9619239920	
	Smt. Arti More	8605053545	
	Mr. Anil N Bua	9422382318	
	Mr. Ashay Kanade	9881177268	
28	Shankarrao Chavhan Vidyalaya & Junior College.	1	Need to visit
29	ST. AGRASEN High School & Junior College.	2	Done
	Smt. Nisha Yadav	8879247214	
30	SUSHMA PATIL Secondary School & Junior College, KAMOTHE	2	Done
	Mr. Arjun Gowari	9320306343	
	Mr. Katkar	842588510	
31	DattuShet Patil Junior College	2	Done
		9594631787	
32	S. S. H. College	2	Done
	Mr. Sawant	9820101062	
33	H.B.P SHRI. DAMAJI GANPAT GOWARI JUNIOR COLLEGE	2	Done
	Smt. Snehal Patil	9920857060	
	Mr. Dinesh Jadhav	9702908798	



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मुंबई महानगर प्रदेश पर्यावरण सुधारणा सोसायटी पुरस्कृत

प्रकाल्पाधारित कृती उपक्रमांद्वारे

### पर्यावरण शिक्षणाचे सक्षमिकरण



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**Mumbai Metropolitan Region Environment Improvement Society** 

**Sponsored** 

Action Based Project for Learning

Strengthening Environment Education

Center for Environment Education

Regional Cell for Central India, 1&2, Pinewood Apartments, 233/1/2, Vidhate Colony,
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