

People's Education Society's

**DR. AMBEDKAR COLLEGE OF COMMERCE & ECONOMICS , WADALA, MUMBAI**





# Environmental Studies Department



- ▶ Year of Establishment- 1972

- ▶ Subject Incharge (Head of Department) - Dr.Yashodhara Shrikant Varale.

- ▶ About the department

Environmental studies subject not only creates awareness in the students about environmental problems like Global warming, climate change, ozone layer depletion but also inculcate into students mind about Resource conservation, ways to reduce Plastic and Electronic waste pollution, Use of 3Rs i.e.Reduce,Reuse,Recycle.



# Vision & Mission

- ▶ Vision-

- ▶ 1. Develop an in depth understanding of various environmental issues.
- ▶ 2. Develop a balanced view of the relationship between environment & development.
- ▶ 3. Develop a deeper concern for the environment & a sense of commitment & responsibility to take proactive action.

- ▶ Mission-

- ▶ 1. To understand concepts related to sustainable development, in relation to improvement of quality of life.
- ▶ 2. To create awareness among the youth about various environmental problems.
- ▶ 3. To make awareness in the students about natural resources conservation.



# Objectives of the department

- 1.To understand relation between society & environment.
- 2.To create awareness in the students about environmental issues.
- 3.To develop responsible environmental behavior



▶ Program/Course offered

Environmental Studies

# Semester wise syllabus- Semester I

## ► Environmental Studies :

Sr.No.	Modules	No.of lectures
1	Environment and Ecosystem	13
2	Natural Resources and Sustainable Development	13
3	Populations and Emerging Issues of Development	13
4	Urbanisation and Environment	13
5	Reading of Thematic Maps and Map Filling	08
	Total	60

Sr.No.	Modules/Units
1	Environment and Ecosystem
	Environment: Meaning, definition, scope and its components; concept of an ecosystem : definition, Characteristics, components and types, functioning and structure; Food Chain and Food Web- Ecological Pyramids - Man and environment relationship; Importance and scope of Environmental Studies.
2	Natural Resources and Sustainable Development
	Meaning and definitions; Classification and types of resources, factors influencing resource; Resource conservation- meaning and methods- I and non-conventional resources, problems associated with and management of water, forest and energy resources- resource utilization and sustainable development
3	Populations and Emerging Issues of Development
	Population explosion in the world and in India and arising concerns- Demographic Transition Theory - pattern of population growth in the world and in India and associated problems - Measures taken to control population growth in India; Human population and environment- Environment and Human Health – Human Development Index – The World Happiness Index
4	Urbanisation and Environment
	Concept of Urbanisation– Problems of migration and urban environmentchanging land use, crowding and stress on urban resources, degradation of air and water, loss of soil cover impact on biodiversity, Urban heat islands – Emerging Smart Cities and safe cities in India - Sustainable Cities
5	Reading of Thematic Maps and Map Filling
	Reading of Thematic Maps(4 Lectures) Located bars, Circles, Pie charts, Isopleths, Choropleth and Flow map, Pictograms - Only reading and interpretation. Map Filling: (4 Lectures) Map filling of World (Environmentally significant features) using point, line and polygon segment. Concept and Calculation of Ecological Footprint



# Semester wise syllabus- Semester II

Sr.No.	Modules	No.of lectures
1	Solid Waste Management for Sustainable Society	13
2	Agriculture and Industrial Development	13
3	Tourism and Environment	13
4	Environmental Movements and Management	13
5	Map Filling	08
	Total	60

Sr.No.	Modules/Units
1	<p>Solid Waste Management for Sustainable Society</p> <p>Classification of solid wastes – Types and Sources of Solid Waste ; Effects of Solid Waste Pollution- Health hazards, Environmental Impacts; Solid Waste Management – solid waste management in Mumbai- Schemes and initiatives run by MCGM – role of citizens in waste management in Mumbai</p>
2	<p>Agriculture and Industrial Development</p> <p>Environmental Problems Associated with Agriculture: Loss of Productivity, Land Degradation, desertification - Uneven Food Production – Hunger, Malnutrition and Food Security – Sustainable Agricultural practices Environmental Problems Associated with Industries – pollution -Global warming, Ozone Layer Depletion , Acid rain, - Sustainable Industrial practices – Green Business and Green Consumerism, Corporate Social Responsibility</p>
3	<p>Tourism and Environment</p> <p>Tourism: Meaning, Nature, Scope and importance –Typology of tourismclassification; Tourism potentials in India and challenges before India; New Tourism Policy of India; Consequences of tourism : Positive and Negative Impacts on Economy, Culture and environment- Ecotourism</p>
4	<p>Environmental Movements and Management</p> <p>Environmental movements in India: Save Narmada Movement, Chipko Movement, Appiko Movement, Save Western Ghat and Save Jaitapur; Environmental Management: Concept, need and relevance; Concept of ISO 14000 and 16000; Concept of Carbon Bank and Carbon Credit.EIA - Environment Protection Acts – Concept and components of Geospatial TechnologyApplications of GST in Environmental Management.</p>
5	<p>Map Filling</p> <p>Map filling of Konkan and Mumbai (Environmentally significant features and GST centres) using point, line and polygon segment. Concept and Calculation of Environmental Performance Index (EPI)</p>

# Teaching Plan- Semester I

Sr.No.	Month	Topics
	June	Environment and Ecosystem
	July	Natural Resources and Sustainable Development
	Aug	Populations and Emerging Issues of Development
	Sep	Urbanisation and Environment
	Oct	Reading of Thematic Maps and Map Filling

# Teaching Plan- Semester II

Sr.No.	Month	Topics
	Nov	Solid Waste Management for Sustainable Society
	Dec	Agriculture and Industrial Development
	Jan	Agriculture and Industrial Development
	Feb	Tourism and Environment
	March	Environmental Movements and Management
	Apr	Revision

# Currently working faculty profile

Sr.No.	Name	Date of joining	Qualification	Experience
1	Dr.Yashodhara Varale	19/06/2006	M.Sc.,Ph.D. LLB,BEd.	17 Yrs.
2	Dr.Gangotri Nirbhavane	21/07/2009	M.Sc.,NET,SET,Ph.D.	14 Yrs



# Students Teacher Ratio

Year	Teacher Ratio
2017-18	1:599
2018-19	1:600
2019-20	1:533
2020-21	1:334
2021-22	1:526
2022-23	1:421



# Research publication

► Dr. Yashodhara S. Varale

1. 19 Research paper published in national & international journals.
2. 02 Chapters published in books.
3. 04 Research Papers Presented.

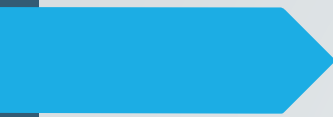
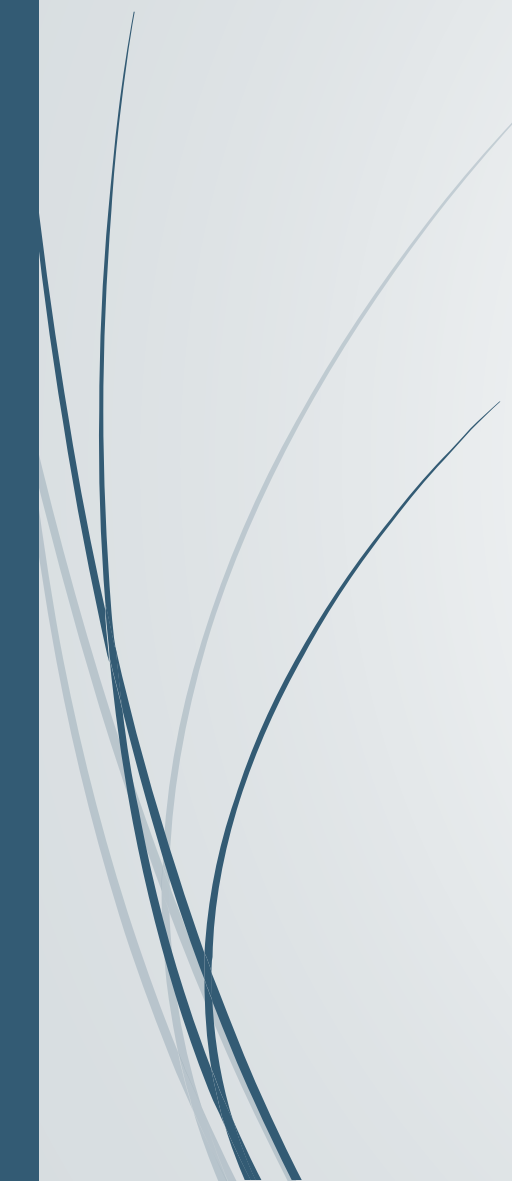
## Research Papers Presented in International /National/Conference /Seminars:

- ▶ 1. Factors Affecting Gender Inequality In Maharashtra : A critical Case Study in One Day National Seminar on “Gender Sensitisation And Women’s Right’s Organised by People’s Education Society’e , Dr. Ambedkar College of Commerce and Economics , Wadala Mumbai on 22<sup>nd</sup> September 2018, Aarhat Multidisciplinary International Education Research Journal (AMIERJ) Volume – VII , Social Issue –XXIII , Peer Reviewed Journal , ISSN – 2278- 5655 , Edu Index , Impact Factor – 5.18.
- ▶ 2. Analysis of Dissolved Oxygen present In Industrial Water Sample of Nipani Town In International Conference on Recent Trends in Science and Technology on 22 nd & 23 rd March 2018 organised by S.S.S.K.R.Innani Mahavidyalaya , Karanja. Aayushi International Interdisciplinary Research Journal (AIIRJ), ISSN -2340-638X Special Issue -26 Impact Factor – 4.574
- ▶ 3. Effect of chloride in pond water sample in Nerul, Navi Mumbai in UGC sponsored National Conference on Emerging Trends in Science on 1 st & 2 nd February 2019 at Vidya Bharati Mahavidyalaya , Amaravati. ‘Research Journey’ International E-Research Journal Impact Factor – 6.261
- ▶ 4..Research Paper Presented “Analysis of Residual Chlorine in Tube Well Water Sample of Sea Wood , Navi Mumbai.” International Conference (online) on Environment , Development and Sustainability ‘ An Interdisciplinary Conference ) (ICEDS 2022) Organised by Department of Botany and IQAC Nya. Tatyasaheb athalye , Sapre and Pitre Science College , Devrukh on 29<sup>th</sup> & 30<sup>th</sup> March 2022.



## Marathi Articles Published in News Papers / Magzines

1. "Aajanm Vidhyarthi - Dr. Babasaheb Ambedkar "Dainik Samrat Newspaper on 125th Birth Anniversary of Dr. Babasaheb Ambedkar visheshank 14th April 2017.
2. "Stri vidhate – Dr. Babasaheb Ambedkar" Dainik Samrat Newspaper 16th & 17th November.
3. "Shikshan he samaj parivartanache sadhan "Dainik Samrat Newspaper 7 th December 2017.
4. Stri – Udharkarte Rajashri Shahu Maharaj Mahagranth of Rajarshi Shahu Maharajj 30 th June 2018.
5. Bhartiy sanvidhnamadhil mahilanche adhikar" The Global Times newspaper. 26th November 2018.
6. Jalniyojan aani Jalvyavasthapanemdhe Dr. Babasaheb ambedkaranche yogdan Dainik Samrat News Paper 6 th December 2018.
7. Bhartiy Sanvidhanache Shilpkar – Dr. Basasaheb Ambedkar" prabuddh jambudweep saptahik paper 16th to 31st December 2018 & 1 st to 15th January 2018.

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8. "AAdarsh Mata Ramai " Dainik Samrat Newspaper 7 th February 2018.
  9. Mala Umalu dya Dainik Samrat Newspaper 7<sup>th</sup> March 2018 .
  10. Krantisury Rashtrapita Jyotirao Phule Dainik Samrat Newspaper 11th April 2018 .
  11. Chatrapati Rajarshi Shahu Maharaj" Dainik Samrat News Paper 18 th May 2018.
  - 12 . " Stri-shikshan praniti - krantijyoti savitrbai phule" Dainik Samrat News Paper 3 rd January 2020.
  13. Bandhmukt Mi Dainik Samrat Newspaper 8 March 2020.
  14. "Stri Astitv" Dainik Samrat Newspaper 8 th March 2020.



# Research publication

► Dr.Gangotri Nirbhavane-

1. 28 Research paper published in national & international journals.
2. 05 Chapters published in books.
3. 17 Marathi articles related with Environment awareness published in Marathi magazines & Diwali special issues.

## Students' strength

Year	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
<b>FYBCOM</b>	1198	1200	1066	671	1051	842

## Examination result

Year: 2017-18

Sem.	Subject	Total registered	Pass students	Passing (%)
I	Env.Studies	1198	750	62.60
II	Env.Studies	1198	772	64.44

Year: 2018-19

Sem.	Subject	Total registered	Pass students	Passing (%)
I	Env.Studies	1200	742	61.83
II	Env.Studies	1200	809	67.42

Year: 2019-20

Sem.	Subject	Total registered	Pass students	Passing (%)
I	Env.Studies	1066	842	78.99
II	Env.Studies	1066	965	90.53

Year: 2020-21

Sem.	Subject	Total registered	Pass students	Passing(%)
I	Env.Studies	668	568	85.03
II	Env.Studies	671	570	84.95



Year: 2021-22

Sem.	Subject	Total registered	Pass students	Passing(%)
I	Env.Studies	1051	942	89.63
II	Env.Studies	1051	910	86.58



# Departmental Activities

1. Every year Environmental Studies department organizes study tour within Mumbai area which covers environmentally significant spots.
2. Department organizes Essay writing & Drawing competition.
3. Department organizes guest lectures on topics related with environmental awareness & Sustainable Development.
4. Environment Department organizes Tree Plantation Programme.



## Following seminars were organized by the department.

- I. National Seminar on “**Ecosystem Restoration and Sustainable Development**” Jointly Organised by Department of Environmental Studies and IQAC at Dr. Ambedkar College of Commerce and Economics, Wadala- 300041, Mumbai on Saturday, 5<sup>th</sup> June 2021 Resource Person : Dr.Priya Parkar Maharishi Dayanand College ,Parel.
- II. Webinar on “**Scientific approach and Environmental Awareness**” Jointly Organized by Department of Environmental Studies at Dr. Ambedkar College of Commerce and Economics, Wadala- 300041, Mumbai in Collaboration with Maharashtra Superstition Abolishment association on Tuesday, 26<sup>th</sup> October 2021 **Resource Person : Sulochanatai Mukhedkar**
- III. Webinar on “Importance of Sustainable Development” Organized by Department of Environmental Studies at Dr. Ambedkar College of Commerce and Economics, Wadala- 300041, Mumbai on Thursday, 16<sup>th</sup> December 2021 **Resource Person – Ms. Deepali Bhide, Assistant Professor in Geography, D.G.Ruparel College, Matunga.**



# Awards/honors received / Invited as a Guest lecturer by individual teachers

▶ Dr.Yashodhara Varale.

1. Awarded as “**Dr.Babasaheb Ambedkar National Award**” for Contribution in Social and Cultural in society From Jagtik Ambedkarwadi Sahity Mahamandal, Nagpur at dikshabhumi on 27<sup>th</sup> March 2022.
2. Awarded as Rashtriy Global Prerana Gaurav Puraskar 2022 “**Best Professor Gaurav Award**” by vijayalaxmi social foundation, sangola, pandharpur on 27<sup>th</sup> March 2022.

## Chief Editor / Editor :

1. Worked as Chief Editor Factors Affecting Gender Inequality In Maharashtra : A critical Case Study in One Day National Seminar on “Gender Sensitisation And Women’s Right’s Organised by People’s Education Society’e , Dr. Ambedkar College of Commerce and Economics , Wadala Mumbai on 22<sup>nd</sup> September 2018, Aarhat Multidisciplinary International Education Research Journal (AMIERJ) Volume – VII , Social Issue –XXIII , Peer Reviewed Journal , ISSN – 2278- 5655 , Edu Index , Impact Factor – 5.18.
2. Worked as an ‘Chief Editor’ for the book entitled “Sustainable Resource Management : Key Issues, Opportunities and Challenges. Vol-1 (ISBN: 978-81-351756-0-published by ER Publication in 2022
3. Worked as an ‘Editor’ for the book entitled “ Advances in Literature , Social science , Commerce and Management . Vol – IV (ISBN: 978-93-88901-33-8) published by Bhumi Publication in April 2023.
4. Board of Studies Member in the subject of EVS and FC at Thakur College , Kandivalli.
5. Selected as Editorial Board Member of **International Journal of Applied, Pure Science and Agriculture. (IJAPSA)**
6. Appointed as a Review Member of Journal of **Emerging Technologies and Innovative Research**
7. Selected as a Editorial Board Member of World Journal of Engineering Research and Technology.
8. Appointed as a Executive Board Member on Jagtik Ambedkarvadi Sahity Mahamandal
9. Appointed as a Review Member on Chhtrapati. Shahu Maharaj Gaurav Granth.



## **Invited as a Judge/ Guest lecturer by individual teachers**

1. Invited as **“Judge”** in **“State level Inter-colligiate competition “** in DTSS College, Malad on 10<sup>th</sup> & 11<sup>th</sup> February 2017
2. Invited as **“Judge”** in **“ANTARIKSHA YATRA “ Two Days State level Inter-collegiate competition “** in DTSS College, Malad on 30<sup>th</sup> January 2020
3. Guest Lecture on the Topic **“ Environmental Awareness “** organised by Shri. Narsinh High School Dhom. Tai- Vai Dist – Satara on Google Meet on 5<sup>th</sup> June 2019 .
4. Guest Lecture on the Topic **“ Environmental Sustainable Development “** organised by Shri. Narsinh High School Dhom. Tai- Vai Dist – Satara on Google Meet on 8<sup>th</sup> June 2019 ..
5. .Guest Lecture on the Topic **“ Environmental Degradation and Pollution “** organised by Shri. Narsinh High School Dhom. Tai- Vai Dist – Satara on Google Meet on 10<sup>th</sup> June 2020 .
6. .Guest Lecture on the Topic **“ Global Issues and climate change “** organised by Shri. Narsinh High School Dhom. Tai- Vai Dist – Satara on Google Meet on 14<sup>th</sup> July 2021 at 11.00 a.m.
7. .Guest Lecture on the Topic **“ Global Issues and climate change “** organised by Shri. Narsinh High School Dhom. Tai- Vai Dist – Satara on Google Meet on 10<sup>th</sup> June 2022 at 11.00 a.m.

## Invited as Subject Expert / Expert Reviewer

1. Invited as **Expert Reviewer** of the question paper in the subject of Environmental Studies for F.Y.B.Com students SEM - I on 04<sup>th</sup> October 2019 at R.A. Podar College of commerce & Economics, Matunga Mumbai.
2. Invited as **Subject Expert on the Board of Studies** in the subject of **Environmental Studies and Foundation Course** on 23<sup>rd</sup> November 2019 at Thakur College of Science & Commerce , Kandivali (East)
3. Invited as **Subject Expert on the Board of Studies** in the subject of **Environmental Studies and Foundation Course** on 10<sup>th</sup> October 2020 at 4.00 p.m. by online mode using ZOOM Platform at Thakur College of Science & Commerce , Kandivali (East)
4. Invited as **Expert Reviewer** of the question paper in the subject of Environmental Studies for F.Y.B.Com students SEM - II on 24<sup>th</sup> February 2020 at R.A. Podar College of commerce & Economics, Matunga Mumbai.
5. 2. Invited as **Subject Expert on the Board of Studies** in the subject of **Environmental Studies and Foundation Course** on 26<sup>th</sup> August 2022 at 12.00 noon in Presentation Room , Thakur College of Science & Commerce , Kandivali (East)



# Social Contribution :

## Invited as a Guest lecturer by individual teachers

1. Guidance Speech on Ramai Ambedkar Jayanti" Budhajan Panchayat samiti, Sector -3, Airoli 7 th Februry 2017.
2. Keynote Speaker on "World's International Women's Day" Panchshil Samajik Santha, Nerul, Navi Mumbai, on 8th March 2017 .
3. Keynote Speaker on 61st Dhammchakr Pravartan din Panchshil samajik sansth, Nerul, Navi Mumbai 31 st September 2017 .
4. Chief Guest Dhammchakra Pravartan Din" Dr .Ambedkar College of Commerce and Economics , Wadala-400031, Mumbai 8 th August 2017.
5. Keynote Speaker Dhammchakra Pravartan Din" Khanda Colony, Panvel 8 th October 2017.
6. Main Speaker "Students Day" ' at Dr .Ambedkar College of Commerce and Economics , Wadala-400031, Mumbai 'on 7<sup>th</sup> November 2017.





7. Main Speaker on “Indian Constitution Day” Dr .Ambedkar College of Commerce and Economics , Wadala-400031, Mumbai 25th November 2017.

8. Chief Guest “Birth Anniversary of Svitribai Phule” Dr .Ambedkar College of Commerce and Economics , Wadala-400031, Mumbai 3 rd January 2018.

9. Jalniyojan v jalvyavasthapanemadhe doctor Babasaheb Ambedkaranche Yogdan ” in Dainik Samrat News Paper on 6 th December 2018

10. Keynote Speaker “127th Bharatratn Dr, Babasaheb Ambedkar Jayanti” Dr .Ambedkar College of Commerce and Economics , wadala- Mumbai on 14<sup>th</sup> April 2018.

11. Chief Guest “127th Birth Anniversary of Bharatratn Dr, Babasaheb Ambedkar Jayanti” “Central Railway All Backward Classes Employee’s Union at Pune. 19th April 2018.

12. Main Speaker “Birth Anniversary of Mahatma Krantisury Jyotiba Phule and Dr. Babasaheb Ambedkar Jayanti “Dr .Ambedkar College of Commerce and Economics , Wadala-400031, Mumbai 14th April 2018.



# Awards/honors received / Invited as a Guest lecturer by individual teachers

## ▶ Letter of Appreciation –

1. Received certificate of Appreciation from Antarang Foundation for the coordinator ship for Antarang Foundation's Career Ready Employability Skills training in 2021-22.
2. Received Letter of Appreciation from Natarajan Education Society on 10<sup>th</sup> April 2022.
3. Received Letter of Appreciation from Natarajan Education Society on 22<sup>nd</sup> September 2020.
4. Received certificate of Appreciation from Global Talent Track on 25<sup>th</sup> August 2020.
5. Received certificate of Appreciation from Kotak education Foundation.

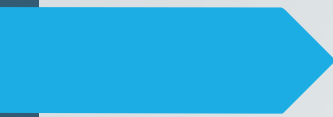

▶ **Editor**

1. Worked as an 'Editor' for the book entitled "Environment and Sustainability " Vol.I (ISBN:978-93-91768-70-6) published by Bhumi publishing house in June 2022.
2. Selected as a Editorial Board Member of World Journal of Engineering Research and Technology.
3. Appointed as a Reviewer in International Journal of Agriculture and Environmental Research.
4. Appointed as a Review Member of Journal **of Emerging Technologies and Innovative Research**
5. Worked as an 'Editor' for the book entitled "Limnology" (ISBN: 978-93-88901-01-7) published by Bhumi publishing house in June2020.



## ► **Guidance Lecture/Judge**

1. Invited as a speaker for webinar on topic “Energy Conservation” on 14<sup>th</sup> Dec.2022 by Father Conceicao Rodrigues College of Engineering (Fr.CRCE),Bandra,Mumbai.
2. Appointed as a judge by Saraswati Mandir High School on 10<sup>th</sup> Dec.2022 for V.K.Kotnis Inter School Elocution competition.
3. Member of the Judging Panel in Prajatantra 2022-23, National Youth Festival organised by Praja Foundation in collaboration with the National Institute of Urban Affair (NIUA)for “Policy Presentation on Municipal Finance Competition” on 28<sup>th</sup> Aug.2022.
4. Invited as a Guest Lecturer at K.J.Joshi College of Arts &N.G.Bedekar College of Commerce, Thane on the topic ‘Sustainable Development’ on 9<sup>th</sup> march 2022 by department of Accounting & Finance.
5. Invited for talk on topic ‘The Cost Benefit Analysis of Sustainable Development from Environmental Angle’ by Economics Department of M.D.College of Arts,Science &Commerce, Parel,Mumbai on 2<sup>nd</sup> March 2022 on the occasion of Talk Series under Azadi Ka Amrit Mahotsav 2022.

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1. Invited as a Guest Lecturer on the occasion of ‘Azadi Ka Amrit Mahotsav’ on topic ‘Urbanisation & Sustainable Development’ on 7<sup>th</sup> March 2022 at M.D.College of Arts, Science & Commerce, Parel, Mumbai.
  2. Invited as a Guest Lecturer at K.J. Joshi College of Arts & N.G.Bedekar College of Commerce, Thane on the topic “Consumption Pattern & Environmental Degradation “ on 26<sup>th</sup> Feb.2022.
  3. Invited as a Resource person at S.B. College of Science, Aurangabad on the topic Sustainable Development on 15 Feb.2020.
  4. Conducted a lecture on Social Issues & Environmental Policies for F.Y.B.Sc.(Nutrition & Dietetics) students at Dr. BMN College of Home Science, Matunga, Mumbai on 26<sup>th</sup> August 2019.
  5. Invited as a resource person for the guidance lecture in subject Environmental Studies for FYBCom students on 23<sup>rd</sup> October 2018, at P. D. Karkhanis College, Ambarnath, Thane.
  6. Invited to deliver a lecture on “Consumerism and Environmental Degradation” and judge for the intercollegiate PPT competition on 10<sup>th</sup> Feb.2018, at M.D.College, Parel, Mumbai.





## Learning resources available in the department

- 1. Earth globe
- 2. World Map
- 3. Textbooks & reference books are available in library.(No.)



# Plan of action of the department for the next five years-

- ▶ Environmental studies department try to make environmental studies subject more interesting by using maps, globe as well as trying to connect students with environment by arranging study tour in environmental significant areas.
- ▶ Department has following plan for next 5 years.
- ▶ 1.Environmental Studies department will try to arrange more study tour in environmentally significant areas.
- ▶ 2. Department will try to arrange guest lectures on topic like electronic waste pollution, awareness about Plastic pollution etc.
- ▶ 3. Department has plan to arrange competition on environmental models, essay writing competition & drawing competition on environmentally significant topics.