

ENVIS HUB PUDUCHERRY

On Status of Environment & Related Issues

PUDUCHERRY POLLUTION CONTROL COMMITTEE

Ministry of Environment, Forests & Climate Change

Government of India New Delhi



2020 - 2021

ANNUAL PROGRESS REPORT 2020 - 21

(1st April 2020 – 31st March 2021)



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(0413) 2201256



envis.pon@nic.in

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Government of India
Ministry of Environment, Forests & Climate Change (EI Division)

ANNUAL PROGRESS REPORT 2020-2021

(1st April 2020 – 31st March 2021)

of

PUDUCHERRY ENVIS HUB

On Status of Environment & Related Issues

Hosted by



Puducherry Pollution Control Committee
Government of Puducherry
Puducherry – 605 005

Website URL: <https://dste.py.gov.in/Envispdy/>
Email Id: envis.pon@nic.in
Telephone: 0413 2201256

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Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Government of India
Ministry of Environment, Forest & Climate Change
(EI Division)

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Annual Progress Report (APR) - 2020-2021 on Activities of ENVIS Hub Centre -Puducherry

Updated on 29.03.2021

1.	Name of Host Organization:	Puducherry Pollution Control Committee
2.	Assigned Subject Area:	Status of Environment and related issues
3.	Date/Month/Year of establishment of ENVIS Centre:	September- 2005
4.	Name and designation of ENVIS Coordinator:	P. Vipin Babu Scientist/Envis Coordinator Puducherry Pollution Control Committee
5.	Has the Host Organization constituted an Advisory Committee for guiding the activities of the Centre?	Yes
	Composition of the Advisory Committee :	Smt. Smitha. R, I.A.S., Secretary to Government (DSTE) – cum - Chairperson (PPCC) S. Dinesh Kannan, IFS Member Secretary Dr. R. Sagaya Alfred Senior Scientific Officer, Department of Science, Technology & Environment P. Vipin Babu Scientist / ENVIS Coordinator

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6.	Current ENVIS Staff Structure:							
	Name	Position held	Qualification and Experience	Joining Date in ENVIS Centre	Joining Date in current position	2020-21		
						Leaving Date (if applicable)	Emoluments drawn (₹)	
							Monthly	Annual
	P. Vipin Babu	Scientist/ ENVIS Co-ordinator	M. Sc., M.Phil	26.06.2016	-do-	-		
1.	J. Nithiya	Programme Officer	B.Sc (Agri), M.Sc (Ecology & Envnt.Science), M.Tech (Envnt.Engg) Experience- 2 Years of experience as Environmental consultant 5 Years 2 Month experience in ENVIS.	10-02-2016	-do-	-	Rs.46,690.15	Rs. 5,60,281.80
2.	S. Jagan Kumar	Information Officer	MCA Experience- 3.7 Years of experience in Computer Application 2 Years 8 Months experience in ENVIS.	19-07-2018	-do-	-	Rs. 38,996.97	Rs. 4,67,963.64
3.	S. Dhinesh	Information Technology Officer	B.Tech (Information Technology) Experience- 2 Years of experience in Computer Application 2 Years 5 Months experience in ENVIS	08-10-2018	-do-	-	Rs. 31,539.38	Rs. 3,78,472.56

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4.	Dr. N. Sridhar	Data Entry Operator/ Plant Taxonomist	2 Years of experience in Teaching 1 year 1 Month experience in ENVIS.	05.02.2020	-do-	-	Rs. 12,100.00	Rs. 1,45,200.00
7.	Mandate of the Host Organization		Mandate of the ENVIS Centre					
	Enforcement of Pollution Control Acts and Rules		<ul style="list-style-type: none"> • Collection, collation, and dissemination of information on Status of Environment and its related issues which will be of immense use to decision-makers, policy planners, research organizations, stakeholders, and to general public. • Under the revamped ENVIS Scheme, various new initiatives has be undertaken by ENVIS Hubs (erstwhile State ENVIS Centres) and ENVIS Resource Partners (RPs) - (erstwhile ENVIS Thematic Centres), in addition to the existing mandate, which include Green Skill Development Programme (GSDP), Grid Based Decision Support System (GRIDSS)- for Sustainable Management of Natural Resources and Building Community- driven Environmentally Sustainable Village Program (CESVP). 					

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8. Databases:

8.1. Catalogue of Non-numeric Databases compiled by the ENVIS Centre till date:

Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation Periodicity/ Data Points Compiled date/month/year last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
News from Dailies	News articles related to Environmental related issues published in various dailies	Descriptive information and Web links	All the published news articles in a month on day-to-day basis <i>March 2021</i>	Newspapers and internet	Available online
Publications	This section includes Puducherry Envis Hub Publications (Newsletter / abstracts / journal articles), books, and information brochures related to Environmental issues	Descriptive	Monthly <i>March 2021</i>	Through Puducherry Envis Hub	Available online
Latest Update	This area features the snapshot of recent activities of the Centre, all communications to be displayed as instructed by the Ministry and the visitors of ENVIS Centre.	Descriptive	Based on the news/events <i>March 2021</i>	Through Puducherry Envis Hub	Available online
Kids corner	Engaging the kids towards Environmental related issues and promoting environmental awareness through Puzzle, image gallery and cartoons	Non -numeric; Descriptive	Monthly <i>March 2021</i>	Books, internet	Available online
Glossary	Brief explanatory notes on terminologies related to Environmental related issues	Descriptive	Yearly	Universities & College Libraries, Institutions, Books, Journals and web sources	Available online

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Major Activities	Activities Undertaken by Puducherry Envis Hub on awareness and outreach programs.	Descriptive/Time-series	Based on the activities <i>March 2021</i>	Through Puducherry Envis Hub	Available online
Bibliography	It includes technical guides, working manuals, yearly reports, etc., released by FAO and other international Organizations working on themes related to the thrust area	Non-numeric; descriptive	Quarterly/Last updated on <i>March 2021</i>	Books, Journals and internet	Uploaded on ENVIS website
Database	All types of environment related data's	Descriptive/Time series	Up to date	Through online	Available online
Notification and Standards	Notification and rules related to Environment	Descriptive	Up to date	Through online	Available online
About us	About ENVIS & Host Organization	Informative	Up to date	ENVIS	Available online
ENVIS Network	ENVIS Focal point & Centres across	Informative	Up to date	ENVIS	Available online
Web Statistics	An overview of visitor summary, visit summary, page view summary, and Hits summary of website	Information in pdf	Up to date	Through Puducherry Envis Hub	Available online
Query / Feedback	Postal and email address of Puducherry ENVIS	Informative	Up to date	-	Available online
Experts	Contact details of subject experts	Informative	Up to date	Puducherry ENVIS	Available online
FAQs	Frequently asked questions related to subject area	Informative	Up to date	Web	Available online
Contact Us	Contact details of ENVIS head & Secretariat at MoEF&CC, Host Organization, and ENVIS Centre	-	Up to date	-	Available online

8.2. **Catalogue of Numeric and Time-series Databases compiled by the Centre till date:**

Name of Database	Description (in brief)	Time Period (Starting year- Ending year) and Periodicity (annual/ monthly/ other)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Agriculture	Area, Production and Productivity of all type of crops	Annually	Agriculture Department, Puducherry	Yes
Air Quality	Air Quality data (parameter wise) National Ambient Air Quality Status for SO ₂ , NO ₂ , PM ₁₀ , RSPM	Monthly	PPCC Records	Yes
Water quality data base	River Water Quality Data Water Quality Data of lake, ponds, & tanks (State wise) Water Quality Data of Ground water	2011-2021 (Annually)	PPCC Records	Yes
Types of Waste	Biomedical waste (BMW) Municipal Solid Waste E waste Plastic Waste Construction & Demolition Waste Hazardous Waste	Annually	PPCC Records	Yes
Climate	Temperature, rainfall etc	Monthly, Annual 1990-2019	Directorate of Economics and Statistics	Yes
Demography	Demography statistics	2001, 2011	Census of India	Yes
Earthquakes	History of Earthquakes	1839 -2018	Disaster Management Deptt	Yes

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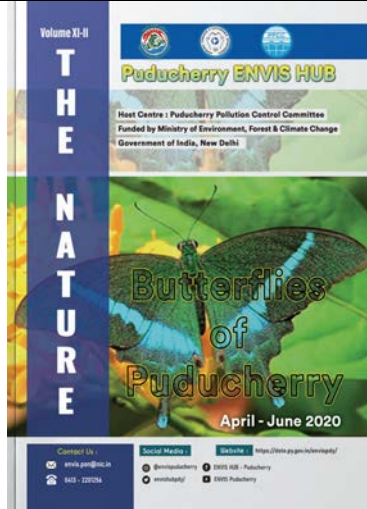

Energy	Electricity and energy Consumption	Annually	REAP & Electricity Department	Yes
Coastal	Coastal data	Periodically	Puducherry Coastal Zone Management Authority	Yes
Fisheries	Types of Fishes available in Puducherry	Periodically	Fisheries Depart., Puducherry	Yes
Industries	List of Industries in the U.T. of Puducherry	Annually	Industries and Commerce, Puducherry	Yes

8.3. New Databases developed during the previous Financial Year (2020-2021): Completed

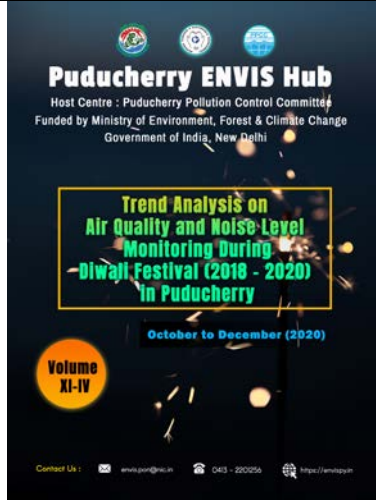
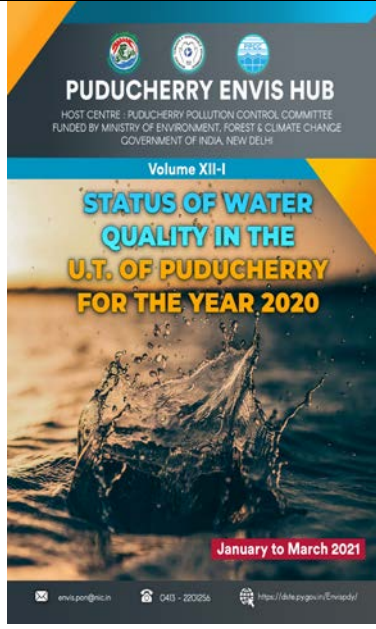
Name of Database	Description (in brief)	Data type (descriptive/ graphical/ geospatial/ etc.)	Status of Updation/ Periodicity/ Data Points Compiled (including date/month/year of last data point)	Source(s) of data	Online Availability (Whether uploaded on ENVIS Website)
Mobile Application (Android)	The Mobile App. aims to furnish basic information on the Birds and Butterflies present in Puducherry region. It also includes families, identification and characteristics.	Descriptive with illustrations wherever necessary	Completed	Puducherry Envis Hub	

9. Information/ Knowledge Products:

9.1. ENVIS Newsletters published during the previous Financial Year (2020-21):




Quarter/ Volume/ Issue/ Theme	Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website	Cover snapshot
April - June, 2020 XI-VOLUME/II-Issue Butterflies of Puducherry	Union Territory (UT) of Puducherry is an amalgam of four non-contiguous coastal regions, out of which three regions viz. Puducherry, Karaikal and Yanam are located on the east coast while the fourth one Mahe is located on the west coast. Puducherry and Karaikal are located close to each other as cluster of enclaves enclosed by the Tamil Nadu plains and their butterfly fauna represent that of the Coromandel coast. The present newsletter deals with butterflies of Puducherry region of the UT.	200 Copies and circulated to all ENVIS centres, MoEF&CC, New Delhi.	https://dste.py.gov.in/Envispdy/Pdf/Newsletter/2020/Newsletter-July-Sept-2020.pdf	
July - September, 2020 XI-VOLUME/III-Issue Trend Analysis of Air Quality during Lockdown & Trend Analysis of Air Quality of Bhogi Festival (2016 - 2020)	Puducherry Pollution Control Committee (PPCC) has carried out manual ambient air quality monitoring at the following six locations to assess air pollution status during the lock down owing to COVID 19 pandemic in the U.T. of Puducherry. Air Quality Assessment was done for 24 hours (4-hourly sampling for gaseous pollutants and 8-hourly sampling for particulate matter) with a frequency of twice a week.	200 Copies and circulated to all ENVIS centres, MoEF&CC, New Delhi.	https://dste.py.gov.in/Envispdy/Pdf/Newsletter/2020/Newsletter-Apr-June-2020.pdf	

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Quarter/ Volume/ Issue/ Theme	Main Articles	Number of copies printed and circulated	URL of the PDF file in ENVIS website	Cover snapshot
October - December, 2020 XI-VOLUME/IV-Issue Trend Analysis on Air Quality and Noise Level Monitoring on Diwali Festival (2018 - 2020) in Puducherry & Karaikal Region	Puducherry Pollution Control Committee has carried out Ambient Air Quality and Noise Monitoring Quality and Noise Monitoring on Pre-Diwali Day and on Diwali Day in Puducherry and Karaikal region during the period 2018 – 2020.	200 Copies and circulated to all ENVIS centres, MoEF&CC Change, New Delhi.		
January - March, 2021 XI-VOLUME/I-Issue Status of Water Quality in the U.T. of Puducherry for the year 2020	Department of Science, Technology & Environment (DST&E)/ Puducherry Pollution Control Committee (PPCC) is Water Quality periodically at 31 locations with financial assistance from Central Pollution Control Board (CPCB) under National Water Quality Monitoring Programme (NWMP). Monitoring is done on quarterly basis in surface water bodies and during pre and post monsoon in case of ground water in Puducherry & Karaikal region and annually in Mahe and Yanam regions.	200 Copies and circulated to all ENVIS centres, MoEF&CC, New Delhi.		

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9.2. Other publications/ information products brought out during the previous Financial Year (2019-2020):

Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
Mobile App.	05.06.2020	Puduvai Patchi	Completed		
Posters					
Earth Day	22.04.2020	Climate action	200 copies		
International Day for Biological Diversity (IDB)	22.05.2020	Our solutions are in nature	200 copies		

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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
World Environment Day (WED)	05.06.2020	Time for Nature	200 copies		
World Ocean Day	08.06.2020	Innovation for a Sustainable Ocean	200 copies		
International Day for Conservation of Mangrove Ecosystem	25.07.2020	Diversity and Conservation measures of Indian Mangroves	100 copies		




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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
World Lion Day	10.08.2020		100 copies		
World Elephant Day	12.08.2020		100 copies		
World Mosquito Day	20.08.2020		100 copies		

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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
International Day for the Preservation of the Ozone Layer	16.09.2020	Ozone for Life - 35 Years of Ozone Layer Protection	100 copies		
World Water Monitoring Day	18.09.2020		100 copies		
Zero Emission Day	21.09.2020		100 copies		

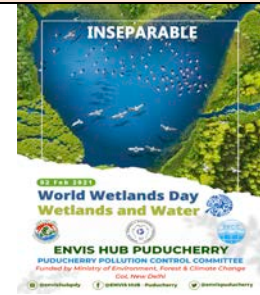
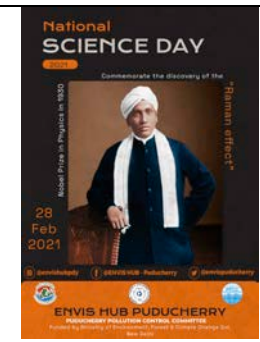

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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
International E-Waste Day	14.10.2020		100 copies		
Salim Ali's Birth Anniversary	12.11.2020		100 copies		
National Pollution Control Day	02.12.2020		100 copies		




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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
World Soil Day	05.12.2020		100 copies		
World Energy Conservation Day	14.12.2020		100 copies		
Bhogi Festival	13.01.2021		100 copies		



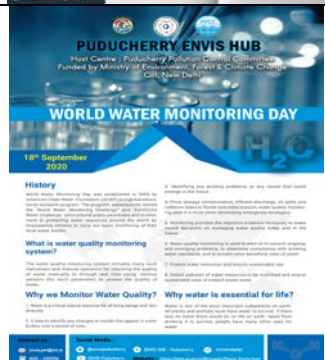
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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
World Wetlands Day	02.02.2021	Wetlands and Water	100 copies		
National Science Day	28.02.2021	Future of STI: Impacts on Education, Skills and Work	100 copies		
Pamphlet					
World Environment Day	05.06.2020		100 copies		

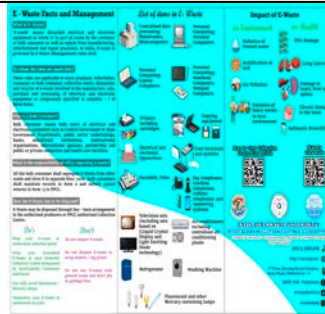


Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
International Day for Conservation of Mangrove Ecosystem	25.07.2020	Diversity and Conservation measures of Indian Mangroves	100 copies		
World Lion Day	10.08.2020		100 copies		
World Elephant Day	12.08.2020		100 copies		



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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
World Mosquito Day	20.08.2020		100 copies		
International Day for the Preservation of the Ozone Layer	16.09.2020	Ozone for Life - 35 Years of Ozone Layer Protection	100 copies		
World Water Monitoring Day	18.09.2020		100 copies		

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Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
International E-Waste Day	14.10.2020		100 copies		
Bhogi Festival	13.01.2021		100 copies		
World Wetlands Day	02.02.2021	Wetlands and Water	100 copies		

Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Publication/ Product	Date	Theme(s)/ Subject Area(s)	Number of copies printed and circulated	URL of the PDF File in ENVIS Website	Cover snapshot
Calendar					
Monthly Science Calendar, 2021	04.01.2021	Science Calendar			
Yearly Science Calendar, 2021	04.01.2021	Science Calendar			

10. ENVIS Website (*ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible*):

10.1.	URL:	https://dste.py.gov.in/Envispdy/	
10.2.	Status of restructuring of Website:	Restructured (Completed)	Not restructured
10.3.	Frequency of updating Website:	Regular	
10.4.	Subject-specific database updation (numeric/ others):	Status of Environment and related issues	
10.5.	Publication uploaded/ updated on Website:	Yes	

11. User Engagement and Interaction (*ENVIS Centres whose Website has been restructured may provide the Performance Report/Graphs generated therein wherever possible*):

11.1.	Total number of visits on Website:	Total No. of visitors: 2335 Year: Jan 2020 to Dec 2021
11.2.	Number of unique visits on Website:	Total No. of Unique Visitors: 1212
11.3.	Number of reports downloaded/ read by stakeholders:	No. of download / read: 233

11.4. Query-Answer Statistics:

Mode of Query Receipt	Number of Queries Received	Number of Queries Responded	Reasons for shortfalls, if any, and action taken to rectify
Online	36	36	
Email	22	22	
Postal	-	-	
Physical	7	7	

<i>User engagement and interaction</i>	<i>FY 2019-2020</i>	<i>FY 2020-2021</i>
i. Total number of visits	1993	2335
ii. Number of unique visits	729	1212
iii. Reports Downloaded/Read	186	233
iv. Total Number of Queries received	71	65
v. Number of Queries responded	71	65
vi. Grade received	-	-

12. Implementation of Annual Plan of Activities of the previous Financial Year (2021-2022):

Activity/ Target	Achievements	Shortfalls, if any, and reasons therefor
Centre's proposed activities 2021 - 2022		
1. Updation & maintenance of Redesigned ENVIS Website	Yes	
2. Regular updation of databases	Yes	
3. Newsletters, Information Products	Yes	
4. Upload of information on all aspects of environment	Yes	
5. Upload books, reports, <i>etc.</i> on the ENVIS website	Yes	
6. Compilation of abstracts, bibliography, news articles, events <i>etc.</i> on the subject area and uploading of the same in the relevant sections of ENVIS website	Yes	
7. Query Response Service	Yes	
8. Reference databases	Yes	
9. Participation in ENVIS workshops / Seminars /Brainstorming Sessions	Yes	
Collection and Compilation of Information and Data		
1. Development and regular updation of <i>databases</i> (descriptive, numeric, pictorial, geospatial, <i>etc.</i>) on the assigned subject area and regular uploading of the same in the <i>Subject Area</i> section of the ENVIS Website, after due verification/ authentication, with suitable referencing of data sources.	Ongoing, Regular	
2. Compilation of <i>Abstracts, Bibliography, News articles, Events, etc.</i> on the subject area and uploading the same in the relevant section of ENVIS Website.	Ongoing, Regular	
3. Identification of data gaps and formulation with implementation of action plan to fill them.	Ongoing, Regular	

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Maintenance of ENVIS Website and User Engagement through it		
4. Maintaining the ENVIS Website up-to-date and user- engaging, and as an inventory of authentic and reliable information in the subject area	Ongoing, Regular	
5. Query-Response/Referral service to stakeholders.	Yes	
6. Developing and upgrading a Kids' Corner.	Ongoing, Regular	
7. Maintaining a disaggregated record of visitors, including unique visitors, to the Website.	Ongoing, Regular	
Publications and Value-Addition		
8. Publishing 4 <i>Newsletters</i> and uploading the same in the relevant section of ENVIS Website.	Ongoing, Regular	
9. Processing/ analyzing data collected and bringing out value-added information Products	Ongoing, Regular	
10. Collecting books, reports and journals on the subject area; Uploading e-versions of books, reports, etc. on the ENVIS Website. Uploading Abstracts of books, reports, journals and articles of those whose e- versions are not available.	Ongoing, Regular	
Other activities	Nil	
Completion of data entry in all respects for ISBEID pertaining to modules (up to 2020-21), namely: <ul style="list-style-type: none"> - Administrative Profile - Demographic - Economic - Climate and Disaster Occurance - Natural Resources 	Completed	

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<ul style="list-style-type: none"> - Water Resources - Ecology - Infrastructure - Agriculture - Animal Husbandry and Fisheries - Industries and Mining - Energy Stock & Production - Pollution - Waste - Health - Heritage and Tourism - Funds Allocated For Environmental Protection, Resource Management And Engagement 		
Suggestions for improvement by Processing Division, MoEF		
<p>Miscellaneous observations:</p> <ul style="list-style-type: none"> - More productive use of ISBEID data by publishing papers, analysis reports, etc. - Update ISBEID data more frequently. Use more modules. Complete back data entry. - Authenticate data and use proper references/citations in both ISBEID and Website. Provide references to only published/verifiable sources. - Develop better content to engage and elicit public participation, visits, queries and downloads etc. to the website. - Develop more value-added products such as books, SoER, CD/DVDs, Software and databases etc. 	Ongoing, Regular	

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13.	New initiatives taken during the previous Financial Year (2020-21):	Conducted Green Skill Development Programme in Pollution Monitors: Air and Water Pollution – 2020- 2021.
14.	Date of most recent physical verification by the Ministry:	December 2018 Dr. Anandi Subramanian, Senior Economic Advisor.

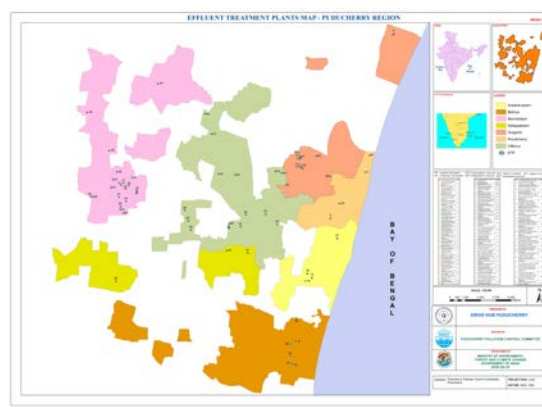
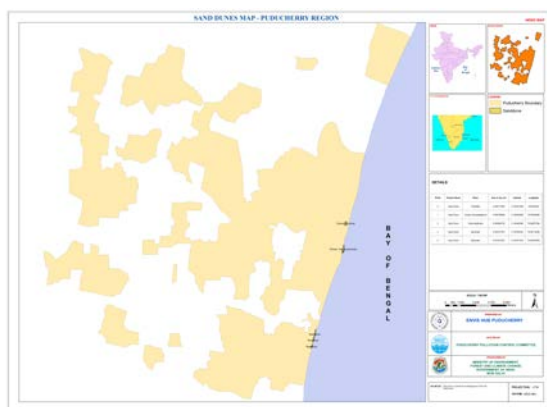
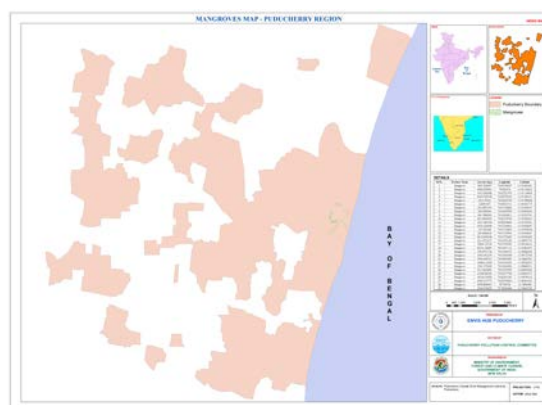
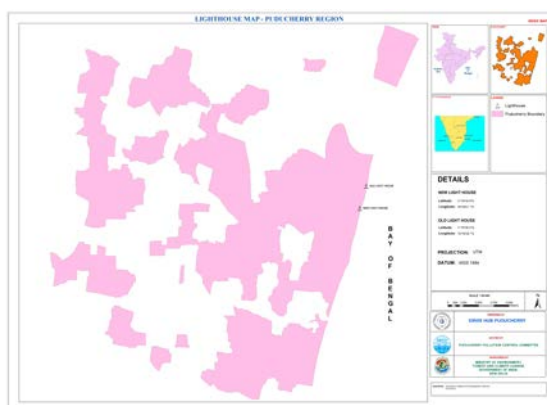
15. GREEN SKILL DEVELOPMENT PROGRAMME 2020 – 2021

Puducherry ENVIS Hub in Puducherry Pollution Control Committee imparted GSDP course in “Pollution Monitoring: Air and Water Pollution” at level- 6 at Dr. Abdul Kalam Science Centre and Planetarium, Lawspet, Puducherry. The training programme was conducted for a period of 30 working days (10^h February to 19th March 2021, 260 hours) and the training module included theoretical, practical, field visits and assignments. The number of participants were 30 from various background from PAN India. In addition, hands-on training and field trips were also arranged to visit Waste Water Treatment and Air Pollution Control Measures adopted in various industries in order to provide a real time exposure. Lectures on various topics of Pollution Monitors: Air and Water pollution i.e., Our Hydrosphere, water chemistry, water pollution, sources of pollutants and effluents, inventorisation of sources of Water pollution, monitoring techniques, water quality management, impacts of water pollution and from Air Pollution syllabus i.e., our atmosphere, introduction about air pollution, meteorology, sources, monitoring, air quality management and impacts of air pollution were also imparted to motivate the participants to become entrepreneurs and for seeking self-employment.

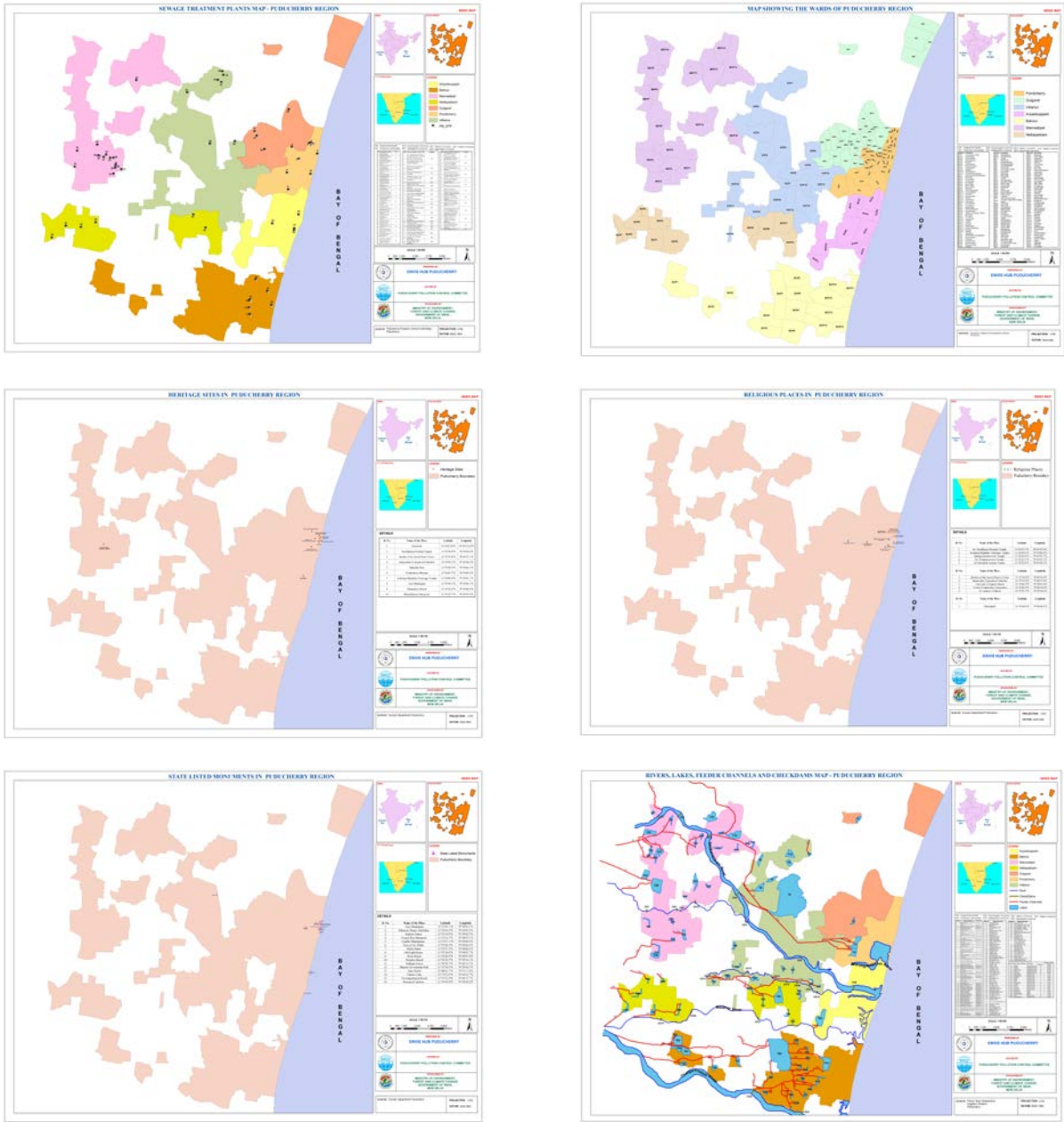


16. National Environment Survey – Grid Based Decision Supporting System (GRIDSS):

The Envis Hub Puducherry has taken steps for carrying out the works relates to the GRIDSS. Under this centre has to carry out survey of designated districts in a phased manner. The country would be divided into grids of 50 x 50 km; however, district wise grids would measure 9 x 9 km or less depending on the terrain, for effective survey of various environmental parameters such as air, water, noise, soil quality, solid, hazardous & e-waste, forest & wildlife, flora & fauna, wetlands, lakes, river & other water bodies, public health etc. Lighthouse, Mangroves, Sanddunes, ETP, STP, Puducherry Commune Boundary, Water Body of Puducherry, Heritage sites, Religious sites and State Listed Monuments. Secondary Data Collection for the selected districts were completed.



Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Enviro Hub



17. TRAINING, EXTENSION, AWARENESS AND OUTREACH ACTIVITIES DURING 2020- 2021:

17.1 CELEBRATION OF WORLD EARTH DAY

Earth Day is an annual event **celebrated** around the world on **April 22** to demonstrate support for environmental protection. A month later a United States Senator Gaylord Nelson proposed the idea to hold a nationwide environmental teach-in on **April 22**, 1970. The Theme for Earth Day 2020 was Climate action.

As a part of the “Earth Day”, the Puducherry ENVIS Hub Centre released awareness Poster on 22.04.2020.



17.2 CELEBRATION OF INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY

The United Nations has proclaimed May 22. The International Day for Biological Diversity (IDB) to increase understanding and awareness of biodiversity issues. When first created by the Second Committee of the UN General Assembly in late 1993, 29 December (the date of entry into force of the Convention of Biological Diversity), was designated The International Day for Biological Diversity. The theme of this event **“Our solutions are in nature”**.

As a part of the “International Day for Biological Diversity”, the Puducherry ENVIS Hub Centre organized the following activities on 22.05.2020.

ENVIS HUB PUDUCHERRY
Puducherry Pollution Control Committee
*Funded by: Ministry of Environment, Forest & Climate Change
Govt. of India, New Delhi*

Celebration of International Day for Biological Diversity

1. Drawing Competition for School Students:
Category A- Std 6th to 8th
Theme: "Biodiversity and its Richness"
Category B - Std 9th to 12th
Theme: "Biodiversity - our solutions are in nature"

2. Slogan Competition for school student from (Std 6th to 12th) in English / Tamil
Theme: "Threats to Biodiversity"
"பயிதவர்தி அபகரத்தபவகசி"

3. Online Quiz Competition for school student from (Std 6th to 12th)
For Online Quiz:
<https://forms.gle/GVhSu7MhPZsC5cJN9>
or
QR Code

22 MAY 2020
INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY
Our solutions are in nature

Important:
Scan your Drawing (Describe your Drawing not more than 150 words) and Slogan to be emailed by 22.05.2020 before 5.00 P.M to envis.pon@nic.in along with the details of participants (Name, Class, School, Mobile number, Email Address, Enroll Number). Selected Drawing / Slogan will published in Our Annual Report.

For More Information:
Phone: (0413) 2201256 / Mail ID: envis.pon@nic.in

E- Certificate will be Issued to the winners

/envishubpdy /ENVIS HUB - Puducherry /envispuducherry

Conducted Online Quiz for the school students from Std 6th to 12th on the topic “Conservation of Biodiversity”. Around 85 contestants were participated in the event and all the participants were issued with E-certificate.

Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Drawing Competition:

Conducted Online Drawing competition for the school students from Std 6th to 8th on the topic "Biodiversity and its richness". Around 26 contestants were participated in the event. The prizes were distributed for the selected winners.



First Prize
Kirubakaran. R



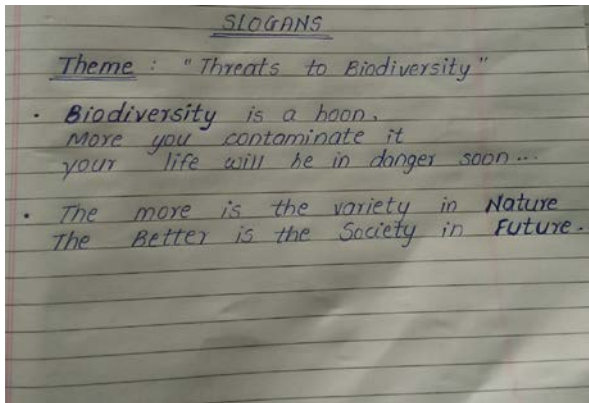
Second Prize
Shanmugarayar. R



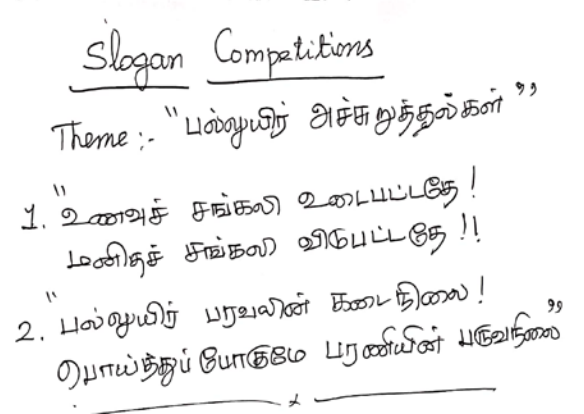
Third Prize
Swedha. S

Slogan Competition:

Conducted Online Slogan competition (English & Tamil) for the school students from Std 6th to 12th on the topic "Threats to Biodiversity". Around 11 contestants were participated in the event and the prizes were distributed for the selected winners.



First Prize (English)
Labina Saral. M



First Prize (Tamil)
Soundary. S

Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

17.3 CELEBRATION OF WORLD ENVIRONMENT DAY & WORLD OCEANS DAY

World Environment Day (WED) is most renowned day for environmental action. Since 1974, it has been celebrated every year on 5th June; engaging governments, businesses, celebrities and citizens to focus their efforts on a pressing environmental issues. Theme of this year's edition is **"Time for Nature"** with a focus on its role in providing the essential infrastructure that supports life on Earth and Human Development.

Further, every year World Ocean Day is celebrated on 8th June since 2009 in order to raise global awareness regarding the challenges faced by international community. This year, the day will convene under the theme **"Innovation for a Sustainable Ocean"**.

As a part of the "World Environment Day & World Oceans Day", the Puducherry ENVIS Hub Centre organized the following activities from 05.06.2020 to 08.06.2020.

Advertisement Poster:



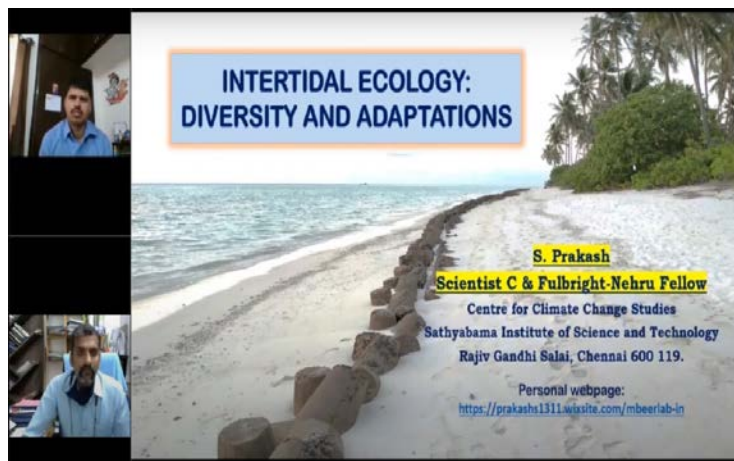
Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Activity- I

Webinar Series (05.06.2020 to 08.06.2020)

Day - 1

Webinar Series on the topic “Application of Remote Sensing & GIS in Oceanography” by Dr. S. Prakash, S, Sathyabama Institute of Science and Technology, Chennai on 05.06.2020. Around 110 participants from India were participated.



Day - 2

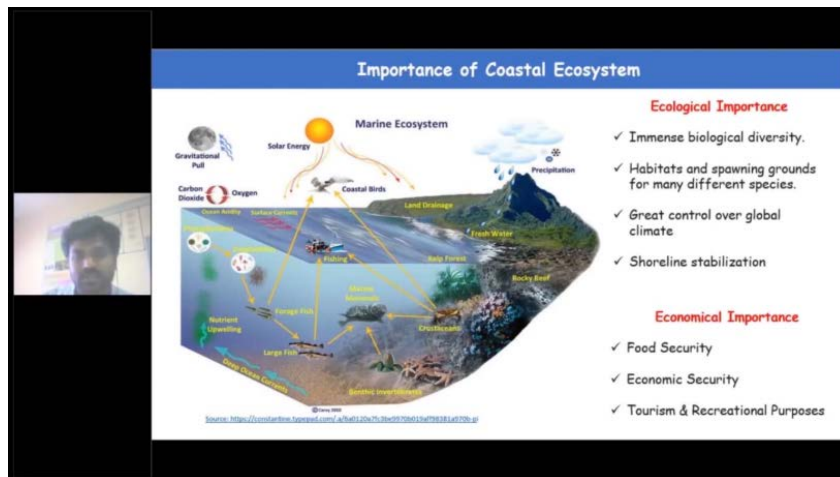
Webinar Series on the topic “Intertidal Ecology: Diversity and Adaptation” delivered by Dr. S. Jayakumar, Head of the Department, Pondicherry University, Puducherry and Dr. M. Bubesh Guptha, Founder Director, Universal Eco Foundation, Puducherry delivered expert lecture on “Biodiversity of Puducherry” on 06.06.2020. Around 103 participants from India were participated.



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Day - 3

Webinar Series on the topic “Threats to Ecosystem” delivered by Mr. Muthukumar, Project Scientist, National Centre for Coastal Research, NIOT and Dr. Renjith. K.R., Scientist- B, KSCSTE – Centre for Water Resources Development and Management delivered expert lecture on “Management Challenges in Marine and Transitional Environment” on 06.06.2020. Around 94 participants from India were participated.



Poster:



NOVEL CORONAVIRUS

ENVIS HUB CENTRE PUDUCHERRY
Puducherry Pollution Control Committee
 Ministry of Environment, Forest & Climate Change
 New Delhi

Protect yourself and others

Wash Hands

Cover Your Mouth & Nose

Clean your environment

Stay Indoors

Do's

Don'ts

Do Not Use Over The Counter Medicines

Avoid crowded places

Do not throw the used mask in open place

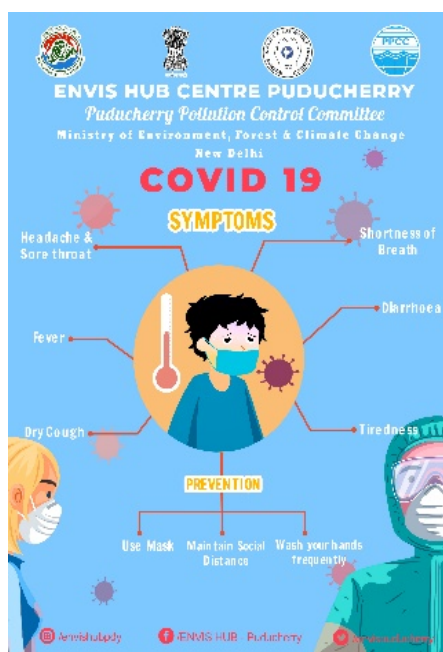
Don't Panic, Take It Easy


Read from facts, engage your child in their activities

There are a mass of lies, you need to stay being aware and use of reliable and credible information to avoid any further damage to your health and safety.

Source: WHO, CDC, Govt. of India, WHO, UNICEF

[@envishub](#) [@ENVIS_HUB_Puducherry](#) [@envispuducherry](#)






ENVIS HUB CENTRE PUDUCHERRY


—Puducherry Pollution Control Committee—

Ministry of Environment, Forest & Climate Change
New Delhi


SOCIAL DISTANCING




Avoiding crowds and other people's space to curb the spread of the virus.




Avoid contact with sick people. If you are sick, stay home and call your health care provider.




Avoid handshaking, hugging and other intimate types of greeting.




Avoid unnecessary errands. Consider ways to have essential items, like food and other household supplies, brought to your house through online delivery services.





Work from home if possible for your work situation.



STAY HOME STAY SAFE


envis.puducherry@gmail.com


[/ENVIS-HUB - Puducherry](https://www.facebook.com/ENVIS-HUB-Puducherry)


envis.puducherry.org

Puducherry Earth Hub
 Host: Centre - Puducherry Pollution Control Committee
 Funded by: Ministry of Environment, Forest & Climate Change
 New Delhi

Procedure for handling, collection, storage, transportation and disposal of biomedical waste generated from treatment of COVID-19 patient/Guarantee Centre/Home





1. Provide yellow colour to all with labelled COVID-19 in isolated waste.
2. COVID-19 Bio-Medical Waste shall be collected in double layered yellow bag.
3. Dedicated policy based on COVID-19 will be issued.
4. Bio Medical Waste from any group, if generated from hospital/health care, field, should be handed over to confirmed waste to be sent/engaged by local bodies.
5. Bio-Medical Waste generated from Quarantine Campus should be handed over to *Central Bio-Medical Waste Treatment Facility*
6. Inner and outer surface of containers/shell/bag/box used for COVID-19 waste should be disinfected with 1% Sodium hypochlorite solution.
7. Tool and other waste generated from field and work / Quarantine Campus / House and not connected to any Municipal or local Waste Management Agency.
8. COVID-19 waste collection should never be used for other purposes.

DON'T

- 1. Mixing of COVID-19 waste with other types of waste
- 2. Storage of COVID-19 waste with other waste
- 3. Site-based collection with COVID-19 waste
- 4. Storage of COVID-19 waste for more than 48 hours

FOLLOW US ON SOCIAL MEDIA:

FOR MORE INFORMATION VISIT:
<https://www.pccm.gov.in/News&Info/News/COVID-19>

PUDUCHERRY ENVIS (HSE)

Host Centre : Pudukkerry Pollution Control Committee
 Funded by Ministry of Environment, Forest & Climate Change
 New Delhi

Positive approach in Mind

"Most folks are about as happy as they make up their minds to be."
 - Abraham Lincoln

Positive thinking sounds useful on the surface. (Most of us would prefer to be positive rather than negative.) But, "positive thinking" is also a soft and fluffy term that is *not* science. In the real world, it rarely carries the same weight as words like "work ethic" or "perseverance." Research has found that positive thinking can aid in stress management and even serve in temporary relief of your own health- and well-being.

Positive thinking is more apt to use as a scientific explanatory style, but the way in which people attribute events can also vary depending upon the event situation. For example, a person who is generally a pessimist in the future might use a more pessimistic explanatory style in particularly challenging situations, such as at work or at school.

Power of positive thinking

A positive mindset can give you more confidence, improve your mood, and even reduce the likelihood of developing conditions such as hypertension, depression and other stress-related disorders.

How to Build a Positive Attitude?




- Start the day with a positive affirmation.
- Turn the glass half-full, however small.
- Find humor in everything.
- Learn to forgive.
- Transforming negative feelings into positive self-talk.
- Focus on the present.
- Find joy in friends, mentors and co-workers.

Benefits of positive thinking

- Researchers continue to explore the effects of positive thinking and optimism on health.
- Research that states optimism may provide its advantages includes:
- Increased life span
- Lower levels of depression
- Lower levels of stress
- Greater resilience to the common cold
- Better psychological physical well-being
- Better cardiovascular health and reduced risk of death from cardiovascular disease
- Better coping skills during stressful times and times of stress
- Identifying negative thinking

For more information visit :
<http://www.puducherryenvissocietiesunion.com>

Follow us on Social Media :



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Puducherry Pollution Control Committee
Funded by
Ministry of Environment, Forest & Climate Change
New Delhi





5th June 2020

Puducherry Envis Hub

Puducherry Pollution Control Committee

Topic : "Water Quality"

"In the year 2019, Puducherry Government, through Puducherry Pollution Control Committee, has been awarded the 1st prize in the category of Best Pollution Control Committee in the National level. The award was given by the Ministry of Environment, Forest & Climate Change, New Delhi. The award was given to the Puducherry Pollution Control Committee for its outstanding performance in the field of water quality management."

Water Quality Management and the Environment

Water is a precious resource and is essential for the survival of all living organisms. It is also a vital component of the environment. The quality of water is a key indicator of the health of the environment. The Puducherry Pollution Control Committee has been successful in improving the water quality in the Puducherry region. This has been achieved through a number of measures, including the implementation of strict water quality standards, the establishment of water quality monitoring stations, and the implementation of water conservation measures.

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Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Pamphlet:



Puducherry Envis Hub
Host Centre : Puducherry Pollution Control Committee
Funded by
Ministry of Environment, Forest & Climate Change
New Delhi

Guidelines for handling, treatment and disposal of COVID19 at Healthcare Facilities, Quarantine Camps / Home-Care, Sample Collection Centers, Laboratories, SPCB / PCCCs, ULBs and CBWTFs

Follow us on Social Media :


For more Information visit :
https://data.py.gov.in/Envispdy/Home_Envis.html

COVID-19 Isolation wards:

Healthcare Facilities having isolation wards for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

1. Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.
2. As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no leaks;
3. Collect and store biomedical waste separately prior to handing over the same CBWTF.
4. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF.
5. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van. In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This labelling would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon this receipt.
6. General waste not having contamination should be disposed as solid waste as per BMW Rules, 2016.
7. Maintain separate record of waste generated from COVID-19 isolation wards.

(b) Sample Collection Centers and Laboratories for COVID-19

Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in case of test centers and laboratories also.

(c) Quarantine Camps/Home Care for COVID-19 suspected

1. Less quantity of biomedical waste is expected from quarantine centers. However, quarantine camps/centers/home-care for suspected COVID-19 cases need to follow these steps to ensure safe handling and disposal of waste.
2. Treat the routine waste generated from quarantine centers or camps as general solid waste and the same need to be disposed as per BMW Rules, 2016. However, biomedical waste if any generated from quarantine centers,

camps should be collected separately in yellow coloured bags and bins.

3. Quarantine camps/centers shall inform CBWTF operator as and when the waste is generated so that waste can be collected for treatment and disposal at CBWTFs.


4. In case of home-care for suspected patients, biomedical waste should be collected separately in yellow bags and the same shall be handed over to authorized waste collectors engaged by local bodies. ULB should engage CBWTFs to pick up such waste either directly from such quarantined houses or from identified collection points.

(d) Duties of Common Biomedical Waste Treatment Facility (CBWTF):

1. Report to SPCBs/PCCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers.
2. Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;
3. Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles.
4. Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles.
5. Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.
6. COVID-19 waste should be disposed off immediately upon receipt at facility. In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/PCCCs.
7. Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.
8. Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.

(e) Duties of SPCBs/PCCCs

1. Shall maintain records of COVID-19 treatment wards/ quarantine centers/ quarantine homes in respective States.
2. Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SPCB given in this guidance document.
3. Allow CBWTFs to operate for extra hours as per requirement. May not insist on authorisation of quarantine camps as such facilities does not qualify as

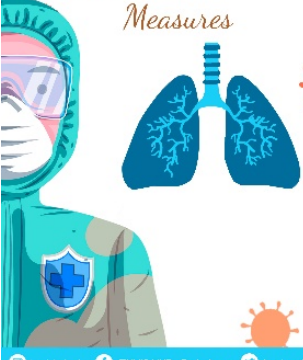


ENVIS HUB CENTRE PUDUCHERRY
Host Centre: Puducherry Pollution Control Committee
Funded by
Ministry of Environment, Forest & Climate Change,
New Delhi

COVID-19

NOVEL CORONAVIRUS

Preventive Measures



ENVIS HUB - Puducherry



ENVIS HUB CENTRE PUDUCHERRY
Host Centre: Puducherry Pollution Control Committee
Funded by
Ministry of Environment, Forest & Climate Change,
New Delhi

Do's and Don'ts for handling, collection, storage, transportation and disposal of biomedical waste generated from treatment of COVID-19 patient/ Quarantine Centre/Home

Do's

- Provide yellow colour bin with labeled COVID-19 in isolated wards.
- COVID-19 Bio-Medical Waste shall be collected in double layered yellow bag.
- Dedicated trolleys labeled as "COVID-19" shall be used.
- Bio-Medical Waste like mask, gloves etc., generated from Quarantined house holds should be handed over to authorized waste collectors engaged by Local bodies.
- Bio-Medical Waste generated from Quarantined Campus should be handed over to Common Bio-Medical Waste Treatment Facility.
- Inner and outer surface of containers / bins / trolleys used for COVID-19 waste should be disinfected with 1% Sodium hypo-chloride solution.
- Food and other waste generated from Isolated wards / Quarantine Campus / Houses shall be disposed as per the provisions of Solid Waste Management Rules, 2016.
- COVID-19 waste collections should wear personal protective devices.

Don'ts

- Mixing of COVID-19 waste and other types of waste.
- Storage of COVID-19 waste with other waste and also more than 24 hours.

5

17.4 INTERNATIONAL DAY FOR CONSERVATION OF MANGROVE ECOSYSTEM

Puducherry ENVIS Hub conducted online Webinar on the topic **“Diversity and Conservation measures of Indian Mangroves”** delivered by Dr. P. Ragavan Post-Doctoral Fellow, Physical Research Laboratory, Ahmedabad and released in-house educational video developed by Puducherry ENVIS Hub on **“The Nature of Fiddler Crab in Mangrove Ecosystem”** held on 25.07.2020 on the eve of International Day for Conservation of Mangrove Ecosystem.

Awareness poster and pamphlet were released digitally during the occasion to spread the message about conservation of mangrove ecosystem.

Poster



Photo by P. Vignu Babu, Envis Coordinator

**26th
July
2020**

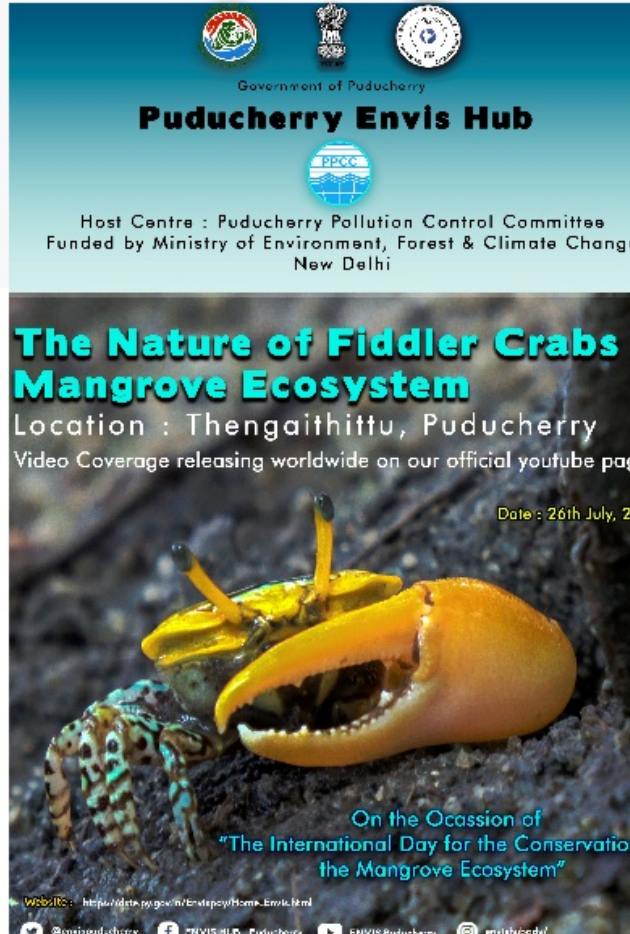
International Day for Conservation of Mangrove Ecosystem



 Natural threats	 Anthropogenic threats	 Sustainable use of Mangrove
<ul style="list-style-type: none"> Climate change Cyclones Infestation by barnacles Damage by Crustaceans Insect pests such as woodborers, caterpillars Drying of mangrove trees and Plant disease 	<ul style="list-style-type: none"> Tree felling for fuel wood and wood products Grazing by cattle Reclamation for agriculture and aquaculture Urban development Industrialisation Wastewater discharge 	<ul style="list-style-type: none"> Culture (Agriculture, Aquaculture –capture fisheries, culture fish) Natural products useful for medicinal purposes, drugs, etc.) Other products (timber, honey, etc.) Socio-economic aspects, Tourism, Traditional medicines, Biodiversity richness spot, Spawning


ENVIS HUB PUDUCHERRY
 Puducherry Pollution Control Committee

Funded by Ministry of Environment, Forest & Climate Change, New Delhi

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 Government of Puducherry
Puducherry Envis Hub

 Host Centre : Puducherry Pollution Control Committee
 Funded by Ministry of Environment, Forest & Climate Change, New Delhi

The Nature of Fiddler Crabs Mangrove Ecosystem

Location : Thengaithittu, Puducherry

Video Coverage releasing worldwide on our official youtube page

Date : 26th July, 2020

On the Occasion of
“The International Day for the Conservation of the Mangrove Ecosystem”

Website : <http://data.pgcc.in/Entespy/home-Entespy.html>
 @envispuducherry *ENVIS HUB - Puducherry ENVIS Puducherry envishubpdy/

Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Pamphlet





GOVERNMENT OF PUDUCHERRY

PUDUCHERRY ENVIS HUB

Host Centre : Puducherry Pollution Control Committee
Funded by Ministry of Environment, Forest & Climate Change
New Delhi

The International Day for the Conservation of the Mangrove Ecosystem

Website : https://dsta.py.gov.in/Envispyd/Home_Envis.html

What is Mangrove ?

A mangrove is a shrub or small tree that grows in coastal saline or brackish water. The term is also used for tropical coastal vegetation consisting of such species. Mangroves occur worldwide in the tropics and subtropics, mainly between latitudes 25° N and 25° S.

Introduction to Mangroves

Mangroves are salt-tolerant forest ecosystems of tropical and subtropical intertidal regions of the world. The mangrove formation is the gift of the land and the sea. Mangrove depends on terrestrial and tidal waters for the nourishment, and still deposits from upland erosion as substrate for support.

The depletion of mangroves is a cause of serious environmental and economic concern to many developing countries. At the same time, their primary production supports numerous forms of Wildlife and Avifauna as well as estuarine and near-shore fisheries.

According to the forest survey report, the mangrove cover in India is 4,872 Sq meters (0.12% of the total land area). In India, this forest type is found in major deltaic regions like Ganges, Sunderbans, Mahanadi, Krishna, Cauvery and Andaman and Nicobar group of islands. The diversity of true mangroves and their associates, in four geographical regions of Puducherry in South India; namely Pondicherry, Karaikal, Mahe and Yanam. These places are far from one another and the mangrove species diversity varies from one place to another, due to factors such as climate, tidal factors and anthropogenic pressures.

In Puducherry, the mangrove forest which is located in Thengalithla lagoon and offers visual treat in the form of dense mangrove forests lining the water beneath them. Pachavan and Mithupet are two potential places which have dense mangrove vegetation in Tamil Nadu. The present investigation was carried out in a mangrove forest of Karaikal (10.09°N and 79.33°E) of Puducherry state, Southern India, between January 2015 and December 2015. The area of Karaikal region is 161 sq. km which is about 150 km from the south of Puducherry Union Territory and is surrounded by Nagapattinam district of Tamil Nadu. This district consists of almost entirely coastal alluvial soil which is highly suitable for cultivation of paddy and pulses. The man-made mangrove of Karaikal is situated in the tri junction of River Arasalar, Bay of Bengal and Bay of Karaikal. Pachavan and Mithupet are two potential places which have dense mangrove vegetation in Tamil Nadu.

Factors that determine area, diversity and growth of mangroves:

The health of the mangrove wetlands with reference to hydrological and soil conditions and the wealth of the mangrove wetlands in terms of area, species diversity, biomass and productivity are determined by degree of protection against high-energy waves, quantity and duration of freshwater flow and sediment supply, larger tidal amplitude and gentle sloping coastal topography. Puducherry mangrove trees are capable of withstanding the forces of cyclones, storms and tsunami they grow only in coastal areas where wave energy is low or in places where mangrove wetlands are protected by sand barriers against high-energy waves. This protection is necessary for the seedlings of the mangrove plants to settle, establish and grow.

The area of the mangrove wetlands is determined by the tidal amplitude and slope of the coastline (tide is nothing but the temporary rise and fall of seawater due to gravitational pull of the moon and the sun and tidal amplitude is the difference between high tide and low tide).



True Mangroves & Mangrove associates:

In general, plants of the mangrove wetlands are divided into two groups namely, a) True or exclusive mangrove and b) associate mangrove species. The following are the characteristic features of true mangrove species: a). True mangrove plants grow only in mangrove environment and do not extend into terrestrial plant communities. b). They play a major role in determining structure of the plant community of the mangrove wetland and ability to form pure stands. c). They are morphologically adapted to live in waterlogged conditions e.g. aerenchyma, roots associated with gas exchange. d). They are physiologically adapted to live in saline environment. About 60 species in 27 genera, belonging to 20 families are considered as true mangrove species.

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GOVERNMENT OF PUDUCHERRY

Puducherry Envis Hub

Host Centre : Puducherry Pollution Control Committee
Funded by Ministry of Environment, Forest & Climate Change
New Delhi

The International Day for the Conservation of the Mangrove Ecosystem

26th July 2020

INTRODUCTION TO MANGROVES

Mangroves are salt-tolerant forest ecosystems of tropical and subtropical intertidal regions of the world. The mangrove formation is the gift of the land and the sea. Mangrove depends on terrestrial and tidal waters for the nourishment, and still deposits from upland erosion as substrate for support. The tidal currents of the forest, and mineral rich river-borne sediments enrich the swamp. Thus the mangroves derive their form and nurture from both marine and terrestrial influences.

In India, this forest type is found in major deltaic regions like Ganges, Sunderbans, Mahanadi, Krishna, Cauvery and Andaman and Nicobar group of islands. The diversity of true mangroves and their associates, in four geographical regions of Puducherry in South India; namely Pondicherry, Karaikal, Mahe and Yanam. These places are far from one another and the mangrove species diversity varies from one place to another, due to factors such as climate, tidal factors and anthropogenic pressures. In Puducherry, the mangrove forest which is located in Thengalithla lagoon and offers visual treat in the form of dense mangrove forests lining the water beneath them. Pachavan and Mithupet are two potential places which have dense mangrove vegetation in Tamil Nadu. The present investigation was carried out in a mangrove forest of Karaikal (10.09°N and 79.33°E) of Puducherry state, Southern India, between January 2015 and December 2015. The area of Karaikal region is 161 sq. km which is about 150 km from the south of Puducherry Union Territory and is surrounded by Nagapattinam district of Tamil Nadu. This district consists of almost entirely coastal alluvial soil which is highly suitable for cultivation of paddy and pulses. The mangrove wetland of Karaikal is situated in the tri junction of River Arasalar, Bay of Bengal and Bay of Karaikal. Pachavan and Mithupet are two potential places which have dense mangrove vegetation in Tamil Nadu.

FACTORS THAT DETERMINE AREA, DIVERSITY AND GROWTH OF MANGROVES:

The health of the mangrove wetlands with reference to hydrological and soil conditions and the wealth of the mangrove wetlands in terms of area, species diversity, biomass and productivity are determined by degree of protection against high-energy waves, quantity and duration of freshwater flow and sediment supply, larger tidal amplitude and gentle sloping coastal topography. Though mangrove trees are capable of withstanding the forces of cyclones, storms and tsunami they grow only in coastal areas where wave energy is low or in places where mangrove wetlands are protected by sand barriers against high-energy waves. This protection is necessary for the seedlings of the mangrove plants to settle, establish and grow. The coastline of the Mahe region of the then combined Mangalore district of French India and Port of Pondicherry in India changed over the last century of history and mangrove growth has been severely affected along the coastline.

For example, tidal amplitude in the Sunderbans mangroves is about 4.8 m and the slope of the coastline is also very gentle. As a result, seawater reaches up to 80 km inland and mangrove wetlands are present up to this point. The total area of the mangrove wetland of the Sunderbans mangrove wetland is about 4,87,000 ha (actual forest cover is about 2,12,000 ha). On the other hand, area of the Pachavan mangrove wetland of Tamil Nadu, where the tidal amplitude varies from 0.40 to 0.65 m, is only about 1,400 ha (actual forest cover is only 100 ha).

PLANTS AND ANIMALS IN MANGROVE WETLANDS:

The plant community in mangrove wetlands is classified into two types namely true mangrove species and associate mangrove species. True mangrove species are found only in the mangrove wetlands whereas associate species are found both in the mangrove wetlands and in the nearby areas. Out of a number of 60 plant species have been identified as true mangroves. All these species are able to grow in saline water but only a few of them have the ability to tolerate high salinity. For example, *Sonneratia tomentosa* can tolerate salt salinity as high as 30 grams per litre but every of the mangrove plants grow successfully only in brackish water salinity is between 10 to 20 grams per litre.

UNIQUE FEATURES OF MANGROVES:

Mangrove plants tolerate salinity of the soil and water by the following ways:

- 1) Salt excretion
- 2) Salt exclusion
- 3) Salt accumulation

WEBSITE:
https://dsta.py.gov.in/Envispyd/Home_Envis.html

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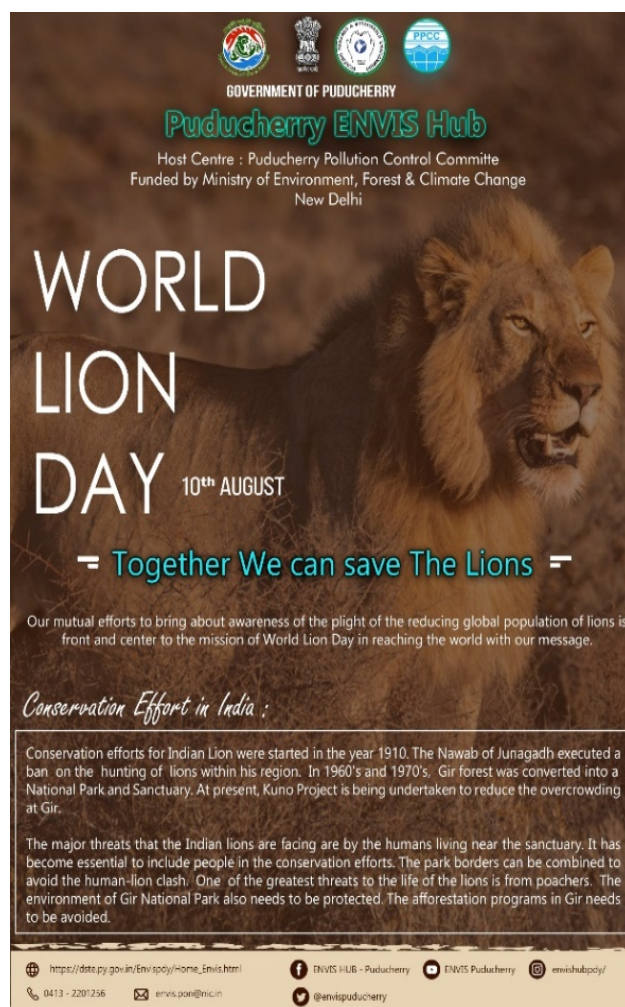
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17.5 CELEBRATION OF WORLD LION DAY


Puducherry Envis Hub released awareness Posters and Brochure on the eve of World Lion Day held on 10.08.2020. The value added products was designed to highlight the facts, habitat, food habit, hunting etc. Awareness Posters & Brochure were released in online during the occasion. To spread the message about the conservation of lion.

Poster



Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Pamphlet



PUDUCHERRY ENVIS HUB
Host Centre : Puducherry Pollution Control Committee
Funded by Ministry of Environment, Forest & Climate Change
Govt. New Delhi

Website : <https://dste.py.gov.in/Envispdy/Home-Envis.html>

0413 - 2201256
envis.pon@nic.in

World Lion Day

10th August

INTRODUCTION

The Indian lion, commonly called as 'King of the Jungle' is one of the five major big cats found in India. The Indian lions extended from the Mediterranean to the north-eastern parts of the Indian subcontinent. But their habitat was reduced due to excessive hunting, water pollution and decline in natural prey. Indian lions are smaller and lighter than their African counterparts, but are equally aggressive.

HABITAT

The Indian lion is also known as the Asiatic lion or the Persian lion. Many years back this lion wandered freely from Asia Minor and Arabia through Persia to India. The Indian lions in the Indian sub-continent extended across northern India from the east, all the way to Bihar in the west, and river Narmada marking their habitat limit in the south.

This lion disappeared from Bihar in 1840, from Delhi in 1834, from Rajasthan and Central India in 1870, from the Eastern Vindhya & Bundelkhand in 1880 and from the Western Aravallis in 1880. The Indian lion was wiped off from its wide Indian habitat except from one particular area, the Gir Forest National Park and Wildlife Sanctuary in the state of Gujarat in India. Indian Lion desires grasslands, shrub and open deciduous forests.

REPRODUCTION AND DEVELOPMENT

Females are receptive to mates for a few days several times a year, unless they are pregnant or nursing, and mating spurs ovulation. They typically give birth to a litter every two years.


Females usually give birth to one to four cubs after a gestation of about 3 1/2 months. Cubs typically nurse for six months but start eating meat at three months. Due to dangers, including starvation during times of food shortage and attacks by male lions taking over prides, up to 80 percent of lion cubs die within their first 2 years of life.

LIFESPAN

Lions in zoos may live into their late teens or early 20s. In the wild, a lioness may live up to 16 years, but males rarely live past the age of 12.

DIFFERENCE BETWEEN AFRICAN LION VS ASIATIC LION

PARTICULARS	ASIATIC LION	AFRICAN LION
SIZE	Smaller in Size	Larger than Asiatic Lion
WEIGHT	Adult males typically weigh between 350 and 420 pounds and adult females weigh between 240 and 365 pounds	Adult males average between 330 and 500 pounds and adult female weigh over 800 pounds.



PLACES FOUND

The Indian lion is now found only in the Gir National Park, Gujarat. There have been efforts made to move a small number of these lions to another park. However, these plans are yet to be put into action.

FOOD HABITS

Their prey consists of Nilgai, Chital, Sambhar, Goats, Buffaloes and also other smaller animals. The lions of Gir kill livestock and sometimes even camels. In India, lions eat several different types of deer, as well as wild boar. Rhinoceros, hippos and elephants are too large, and lions usually attack these animals when starving. A lioness needs to eat 11 pounds of meat a day; a male needs about 15.5 pounds of flesh.

HUNTING AND DIET

Lions usually hunt in organized groups. Typically, several lionesses work together and enclose the herd from different points. Then they usually target the closest prey. Lionesses do maximum of the hunting; males attached to prides do not usually participate in hunting, except for larger target such as giraffe and buffalo. Young lions first display stalking behavior around three months of age, although they do not participate in hunting until they are almost a year old. They begin to hunt effectively when nearing the age of two.

SPECIES OF LION

Eight Recent (Holocene) subspecies of Lion are recognized today


- ✓ Persica, known as the Asiatic lion or South Asian, Persian, or Indian Lion, once was widespread from Turkey, across South-west Asia, to Pakistan, India, and even to Bangladesh. Now around 300 exist in and near the Gir Forests of India.
- ✓ Leo, known as the Barbary lion, originally extended from Morocco to Egypt. It vanished in the wild due to excessive hunting.
- ✓ Senegalensis, known as the West African Lion, is found in western Africa, from Senegal to the Central African Republic.
- ✓ Azandica, known as the Northeast Congo Lion, is found in the northeastern parts of Congo.
- ✓ Nubica, known as the East African, Masai Lion is found in east Africa, from Ethiopia and Kenya to Tanzania and Mozambique, a local population is known as Tsavo Lion.
- ✓ Bleyenberghi, known as the Southwest African or Katanga Lion, is found in southwestern Africa, Namibia, Botswana, Angola, Katanga (Zaire), Zambia, and Zimbabwe.
- ✓ Kruger, known as the Southeast African Lion or Transvaal Lion, is found in the Transvaal region of southeastern Africa, including Kruger National Park.
- ✓ Melanochaita, known as the Cape lion, became destroyed in the wild around 1860.

MANE	Relatively short, sparse mane	longer and fuller manes
TUFTS	thicker elbow tufts and a longer tail tuft	relatively sparse elbow tufts and a shorter tail tuft
SKIN FOLD	longitudinal fold of skin that runs along the belly	lack the longitudinal fold of skin that runs along the belly
SKULL	bifurcated infraorbital foramina, small holes in the skull that allow nerves and blood vessels to pass to the eye	lack the longitudinal fold of skin that runs along the belly
PRIDE SIZE	highly sociable and live in social units. Asiatic pride included five adult females, but most just have two adult females.	live in social units, prides include an average of four to six females, their cubs and one to four male lions.
MALE SOCIABILITY	Male Lion associate with female lions when mating or at large kills. Otherwise, they live alone or in partnership with another male lion. These partnerships allow male Asiatic lions to control larger territories and more easily scare off rival males.	live in social units, prides include an average of four to six females, their cubs and one to four male lions.

PREY SIZE	Prey size is Smaller. For Ex. Chital deer which weighs around 110 pounds.	Prey size is larger. For ex. Wildebeest and Zebra which weighing as much as 600 to 800 pounds. In some occasion it will prey African Buffalo which weigh around 1000 and 2000 pounds.

THREATS TO ASIATIC LIONS

- ✓ The saddest part is that the habitat of this endangered species has been snatched by the humans.
- ✓ The cruel and inhumane nature of the residents has been recorded by the authorities various times.
- ✓ Activities like mining and excavation must be avoided as they are harmful to the population of these lions.



Uncovered areas and open walls are important questions against their safety.

Around the areas of their habitat, electrification has been recorded as a dangerous activity because it harms the innocent lions.

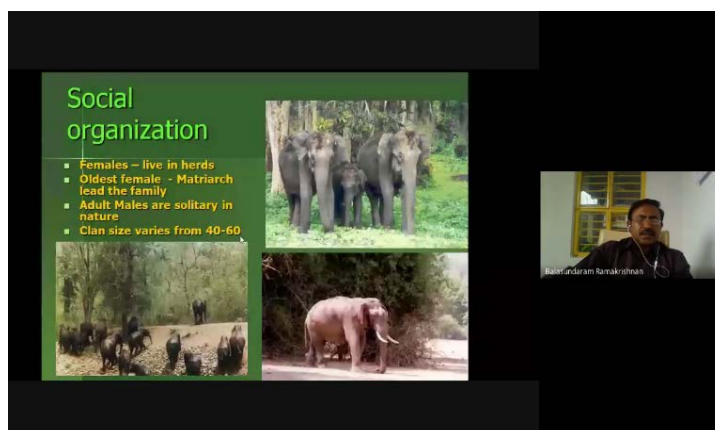
Activities like mining and excavation must be avoided as they are harmful to the population of these lions.

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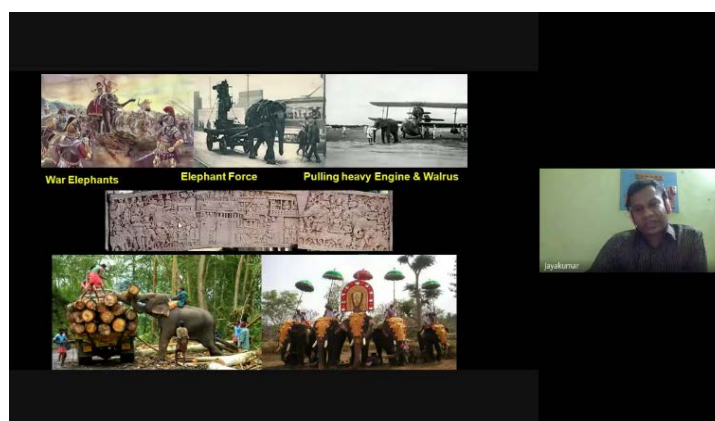
17.6 CELEBRATION OF WORLD ELEPHANT DAY

World Elephant Day has been celebrated from the year 2011. It is a day to honor elephants, to spread awareness about the critical threats they are facing, and to support positive solutions that will help ensure their survival.

Conducted online Webinars on the topic **“Elephant- The Keystone Species in Biodiversity Conservation”** delivered by Dr. B. Ramakrishnan, Assistant Professor, Department of Zoology & Wildlife Biology, Government Arts College, Udhagamandalam & Dr. S. Jayakumar, Assistant Professor, Department of Zoology & Wildlife Biology, A.V.C. College, Mannampandal, Nagapattinam District, Mayiladuthurai delivered the topic on “Asian Elephant: Then and Now” held on 12.08.2020 on the eve of World Elephant Day. The publics enthusiastically participated in the above said webinars. Nearly 85 publics were participated in the event.



**Webinar delivered by Dr. B. Ramakrishnan, Assistant Professor,
Department of Zoology & Wildlife Biology, Government Arts College**



**Webinar delivered by Dr. S. Jayakumar, Assistant Professor,
Department of Zoology & Wildlife Biology, A.V.C. College**

Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Enviro Hub

Poster:



ENVIS HUB PUDUCHERRY
Puducherry Pollution Control Committee



12th August 2020

World Elephant Day

Bringing the world together to help elephants #elephantday

@envishubpdy @ENVIS HUB - Puducherry @envispuducherry

THREATS ELEPHANTS ARE FACING

- Habitat loss**- as more of the elephant habitat is taken by humans for various uses, the elephant population is forced into a smaller and smaller area with less food and water.
- Human-Elephant Conflict**- as humans encroach on the elephants land, the two parties often come into conflict.
- The Ivory Trade** - the demand for ivory from elephant's tusks is the biggest driver of elephant poaching, and demand for ivory on the illegal black market is relentless.

FACTS ABOUT ELEPHANTS

- The gestation period of elephants is 22 months. Baby elephants weigh around 100kg on average.
- The average lifespan of an elephant is from 50 to 70 years.
- Male African elephants can reach 3m tall and weigh between 4,000 -7,500kg.
- Asian elephants are slightly smaller, reaching 2.7m tall and weighing 3,000- 6,000kg.
- Elephants spend between 12 to 16 hours eating grass, plants and fruit every single day.
- Elephants are highly social animals with incredible memories.
- Elephant tusks is used as a tool to dig for food or water and to strip bark from trees; as a weapon in battles with rivals; and as a courtship aid - the larger his tusks, the more attractive a male elephant may appear to a female.
- Female elephants live in groups, all related and led by a matriarch, usually the oldest in the group.

2

- The trunk of an elephant is flexible extension of his upper lip and nose
- The gestation period of elephants is 22 months. The babies can stand up shortly after being born.
- It's really true that elephants never forget. Elephants are known to display complex behaviour indicating that they feel empathy for others, and are capable of demonstrating other emotions including grief.
- Elephants can get sunburned! These giants bathe in mud to help protect their skin from the sun. They also do that to keep bugs off.
- All that eating means one thing, poop, an awful lot of poop! Each elephant creates about one tonne of poop per week, which keeps the soil fertile and disperses tree seeds. Elephants also dig waterholes and create footpaths, literally changing the landscape around them!
- Males considerably larger than females of same ages. It requires 150kg of plant matter and 100 litres of water per day.
- Asian elephants have six sets of teeth, all six of which are present in the skull at birth.
- An elephant's brain is large, weighing between 9 and 13 pounds (4 and 6 kilograms). Elephants have a great capacity to learn. In fact, much of their behavior is learned behavior rather than instinctive behavior.
- the elephant's legs are stacked in an almost vertical position under the body. This positioning, along with the detailed anatomy of their long bones, provides a strong support for the animal's great weight. The vertical position of the limbs allows the elephant to remain standing for long periods without expending much energy. It also allows elephants to sleep while standing, as well as while lying down.

African Vs Asian elephant

- Ears** The African elephant's ears are much bigger than those of its Asian cousin, extending above the shoulder.
- Tusks** Both male and female African elephants grow long tusks, but only male Asian elephants do (and not all males).
- Head** African elephants have more rounded foreheads, while Asian elephants have twin domes on their heads with an indent in the middle.
- Trunk** The tip of an African elephant's trunk has two fingers or 'lips'; the Asian elephant's trunk only has one.
- Back** While the African elephant's back is concave (with a small hollow in it), the Asian elephant's is convex (slightly domed).
- Size** In general, African elephants are larger. Adult males weigh up to six tonnes, while male Asian elephants usually weigh no more than five tonnes.

Interesting Facts about the Asian Elephant

- Top-Notch Trunk** An elephant's trunk is the combination of the nose and upper lip. It contains 60,000 muscles!
- Water Nose** Elephants use their trunks to suck up water and spray the water in their mouths. They can hold up to two gallons in their trunk at one time!
- Task Tools** Males use their tusks to fend off attackers, dig in the ground, and even knock down trees.

ENVIS HUB PUDUCHERRY
PUDUCHERRY POLLUTION CONTROL COMMITTEE
3rd Floor, Housing Board Complex,
Anna Nagar, Sellathope
Puducherry - 6.
@ENVIS Puducherry @envispy.in ☎ (0413) 2201256

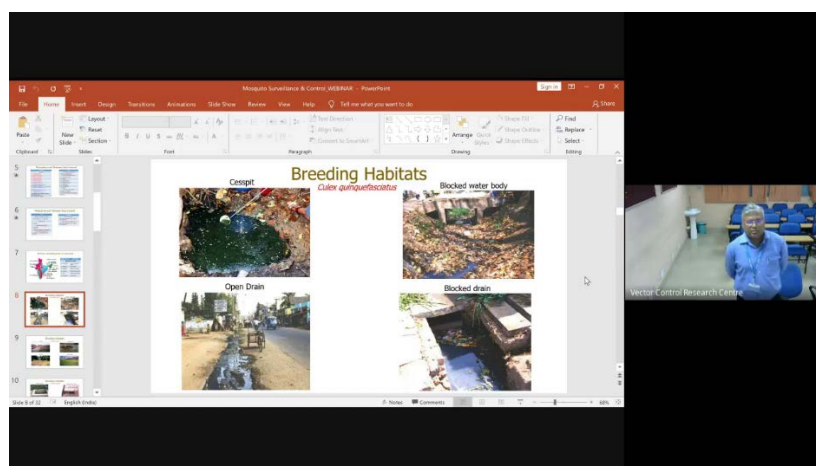
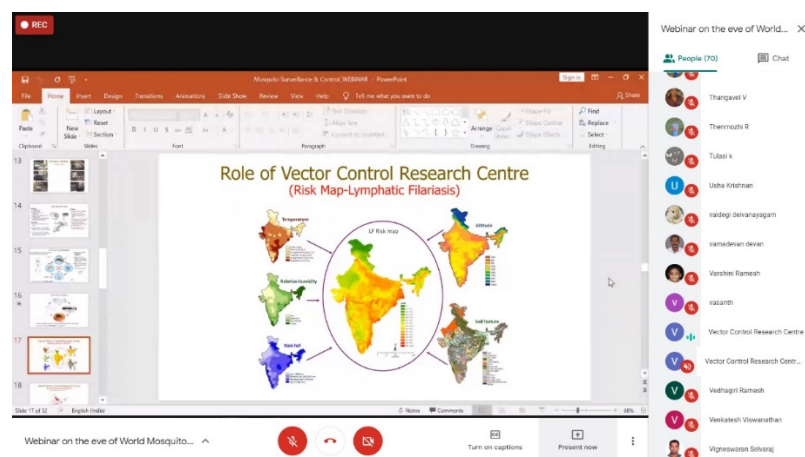
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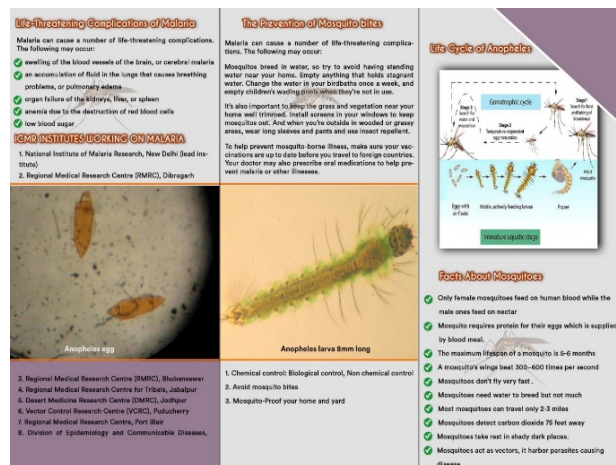
17.7 CELEBRATION OF WORLD MOSQUITO DAY

Every year August 20th is celebrated as World Mosquito Day. It was first established in the year 1897, when the link between mosquitoes and malaria transmission was discovered by Sir Ronald Ross. It aims to raise awareness about the causes of malaria and how it can be prevented, as well as fundraising for research into the cure of malaria.

Conducted online Webinar on the topic "**Mosquito Surveillance and Control**" delivered by Dr. A. N. Shriram, Scientist –C, ICMR - Vector Control Research Centre, and Puducherry on 20.08.2020. Nearly 70 publics were participated in the event.



Awareness poster and pamphlet were released digitally during the occasion to spread the message about control of mosquitoes.

POSTER:

17.8 CELEBRATION OF WORLD OZONE DAY

The International Day for the Preservation of the Ozone Layer, more generally known as the World Ozone Day, is celebrated on the 16th of September every year, commemorating the date on which the Montreal Protocol for the abatement of substances that deplete the Ozone Layer was signed in 1987. Every year, the UN Environment Programme will declare a specific theme to protect and preserve the ozone layer. The theme for 2020 is “Ozone for Life - 35 Years of Ozone Layer Protection”.

The Ozone Layer shields the Earth from most of the sun’s harmful ultraviolet radiation. In the late 1970s, scientists discovered that ozone-depleting substances used in aerosols and refrigerants in refrigerators and air-conditioners is creating a hole in this protective shield, popularly known as the Ozone Hole. This hole allowed the harmful UV rays penetrate through Ozone layer increased the cases of skin cancer and cataracts, and damaged plants, crops, and the ecosystems.

As a part of the “World Ozone Day” Puducherry Pollution Control Committee (PPCC) through ENVIS Hub and Puducherry Puducherry Climate Change Cell (PCCC) organized the following activities on 16.09.2020.



**Welcome Address was given by
Mr. Nagalla Srinivasa Rao,
Scientific Officer, DSTE**

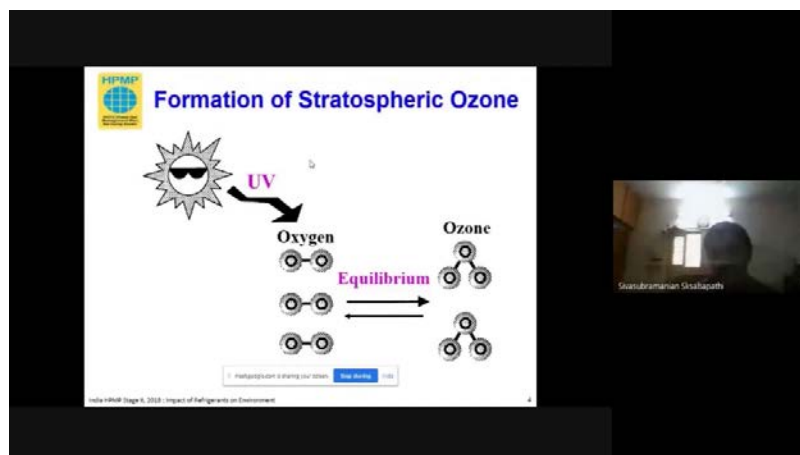


**Opening Remarks has been
given by Dr. R. Sagaya
Alfred, Senior Scientific
Officer, DSTE.**

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Webinar Session 1

Thiru. S. Kanagasabapathi, Technical Trainer, HPMP Training Project under GIZ and Ministry of Environment, Forest & Climate Change, Govt of India, New Delhi delivered the expert lecture on “Ozone Depletion and Global warming” on the eve of World Ozone Day.



Webinar Session 2

Thiru. R. Kamalakannan, Organizer-cum-Technical Trainer, HPMP Training Project under GIZ and MOEF & CC, Govt of India delivered expert lecture on “Environmental Refrigerants” on the eve of World Ozone Day.

The screenshot shows a presentation slide titled "ASHRAE 34: Safety Classification of Refrigerant". The slide content includes:

- American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) 34 – Designation and Safety Classification of Refrigerants for toxicity and flammability
- Flammability
 - 1 – No flammability
 - 2 – Flammable
 - 2L – Mildly Flammable
 - 3 – Higher Flammability
- Toxicity
 - A – Lower toxicity
 - B – Higher toxicity

A small inset video shows a person speaking.

The skill development online webinar program would help the Polytechnic students, School students and General public. It was highly useful to the students who are studying in Mechanical (Refrigeration and Air-conditioning) and Electrical Disciplines to handle the refrigerant and air conditioner gases effectively which otherwise leads to environmental issues. Nearly 70 participants participated in the event and all the participants were issued with E-certificate.

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Puducherry Envis Hub**

Activity 2:

Organized an interactive session with Industries to promote reduction and elimination of chemicals that destroy the Ozone layer and encouraged them to take green pledge towards the use of ozone-friendly chemicals.



Photoclips: M/s. Chemfab Alkalies Limited, Kalapet



**Photoclips: M/s. Lucas TVS,
Nettapakkam**

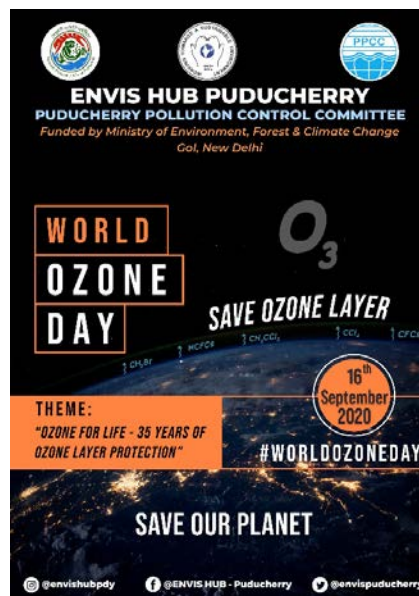
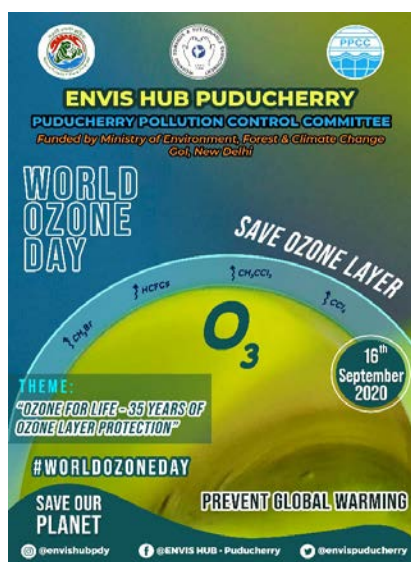


**Photoclip from M/s. Hindustan
Unilever Limited, Bahour**

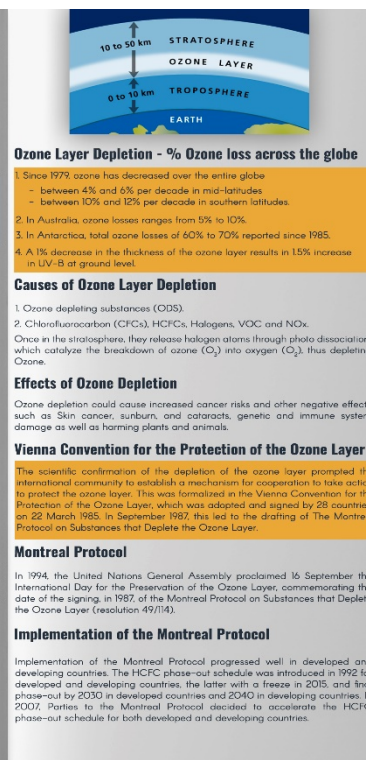
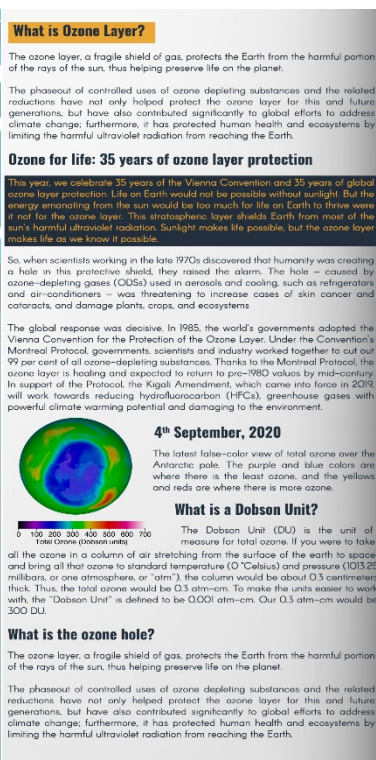
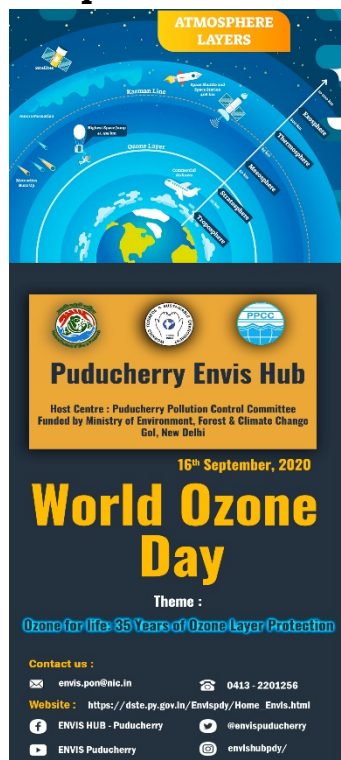
Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Awareness poster and pamphlet were released digitally during the occasion to spread the message about the protection of Ozone layer.

Poster:



Pamphlet

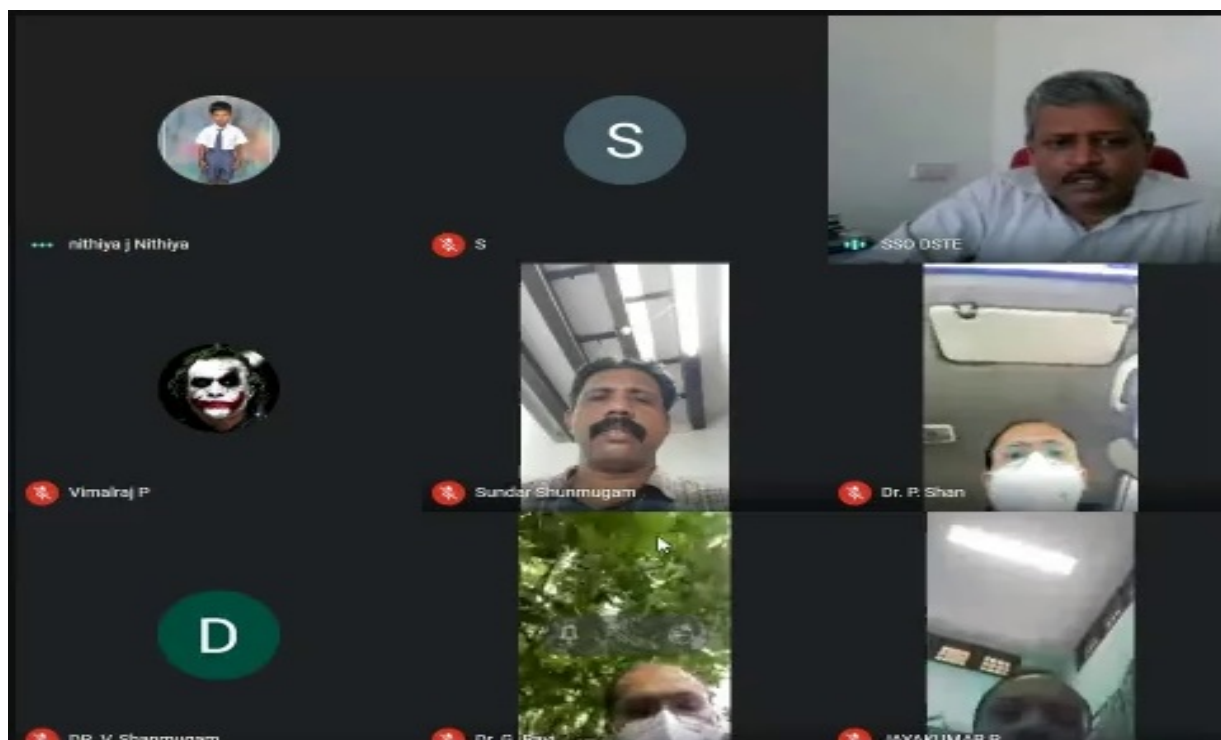


17.9 CELEBRATION OF WORLD WATER MONITORING DAY

World Water Monitoring Day commemorated on 18th of September, every year, is an international education and outreach program started with an aim of public awareness on the importance of protecting water resources around the world by engaging people to conduct basic monitoring of their local water bodies.

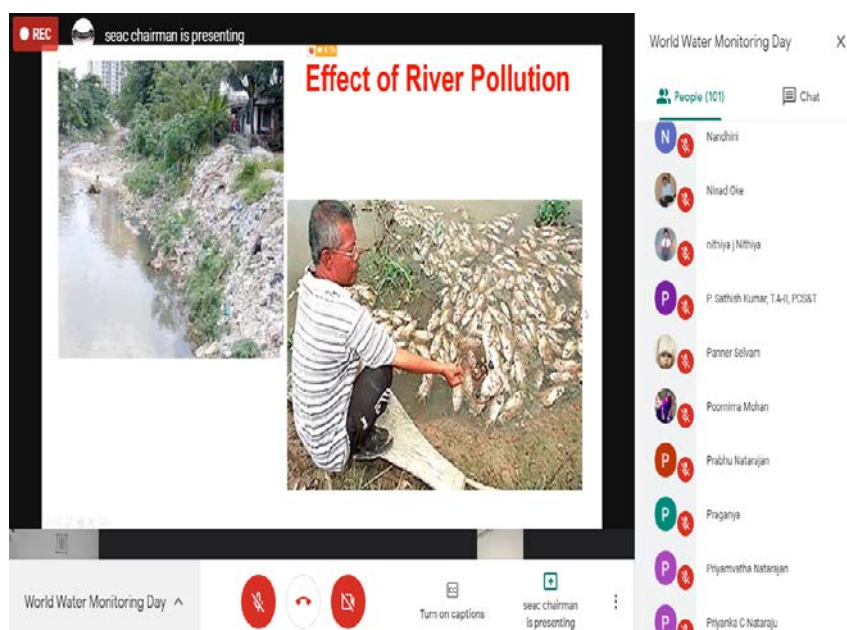
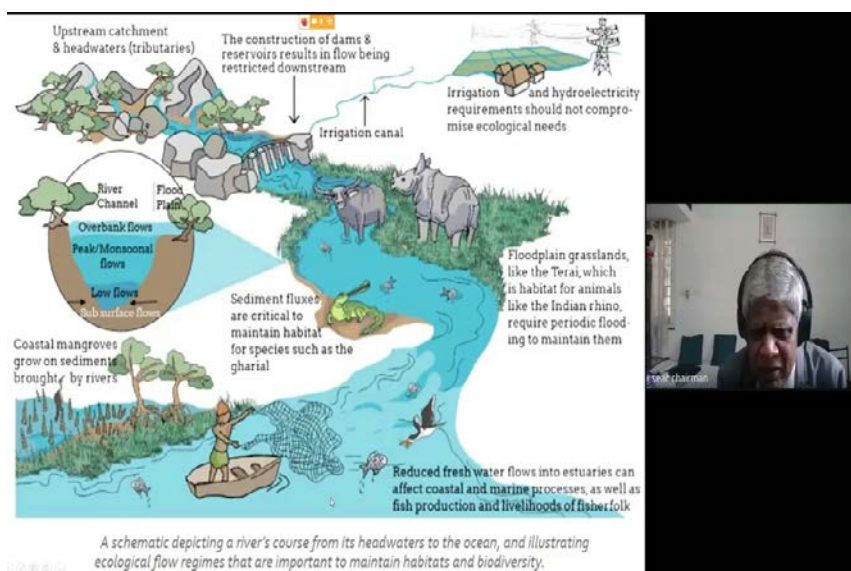
The day engages people of all ages in monitoring the condition of local river, streams, estuaries and other waterbodies. The objective is to teach participants about some of the most common indicators of water health viz., Colour, Odour, pH, Turbidity etc. by conducting simple monitoring tests which encourages further participation in more formal citizen monitoring efforts.

Dr. R. Sagaya Alfred, Senior Scientific Officer, Department of Science, Technology & Environment, Puducherry welcomed the Expert and participants and also gave a brief introduction and highlighted the importance of celebrating World Water Monitoring Day.



Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Conducted online Webinar on the topic **“Emerging Contaminants in River Water Quality: Issues and Measurements”** delivered by Dr. S. Mohan, Professor, Department of Civil Engineering, Indian Institute of Technology, Madras. The public enthusiastically participated in the above said event. Nearly 105 public participants participated in the event.



Awareness poster and pamphlet were released online during the occasion to spread the message about the importance and conservation of waterbodies.

Factsheet of 2020-21 on Activities of ENVIS Hub on Status of Environment & Its related issues by Puducherry Envis Hub

Poster:



Brochure



ENVIS HUB PUDUCHERRY
PUDUCHERRY POLLUTION CONTROL COMMITTEE
Funded by Ministry of Environment, Forest & Climate Change
Govt, New Delhi

World Water Monitoring Day 2020

18th September 2020

saving water saving life!

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World Water Monitoring Day 2020

18th September 2020

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ENVIS HUB PUDUCHERRY
PUDUCHERRY POLLUTION CONTROL COMMITTEE
Funded by Ministry of Environment, Forest & Climate Change
Govt, New Delhi

World Water Monitoring Day 2020

18th September 2020

saving water saving life!

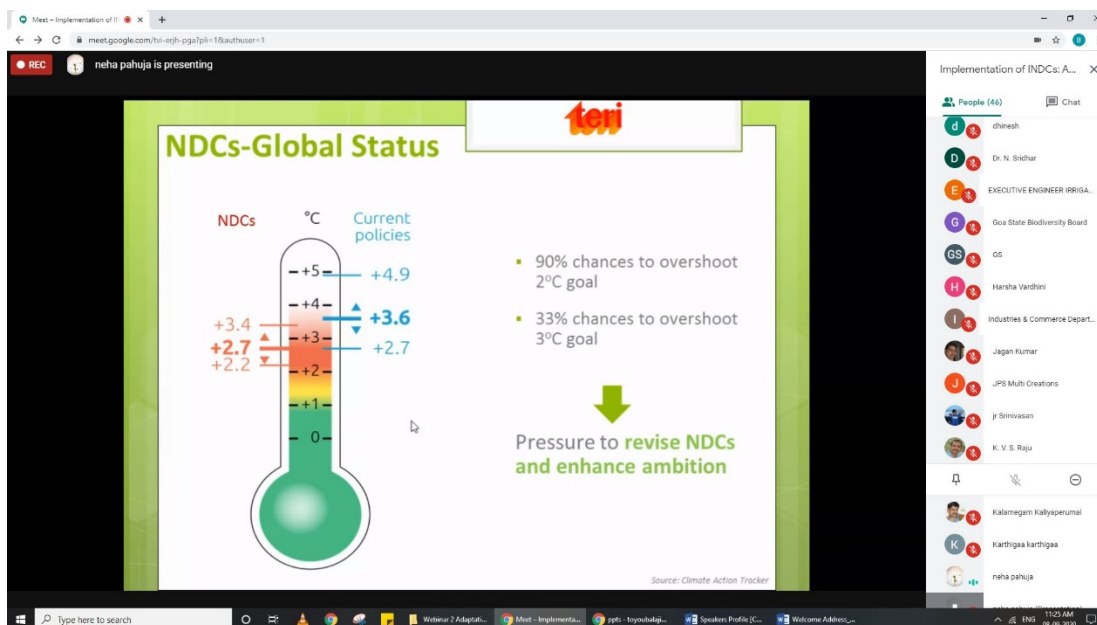
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17.10 WEBINAR SERIES ON “CLIMATE CHANGE: NET ZERO EMISSION PATHWAYS”

Puducherry Climate Change Cell along with Puducherry Envis Hub organized online webinar series on 21.09.2020. The webinar includes the following sessions:

Session	Title	Speaker
Session 1	Exploring CO ₂ reduction from Renewable Energy Sources	Dr. G. Renuka Devi, Associate Professor, MVIT, Puducherry.
Session 2	Achieving net-zero emissions for Puducherry: Applying lessons from around the world	Mr. William Hall, Industrial Energy Efficiency & Sust. Technology, Associate Fellow, TERI.
Session 3	Renewable Energy and its importance	Mr. Mohammed Subhan Khan, Renewable Energy Technology Applications, Research Associate, TERI.



17.11 CELEBRATION OF E-WASTE

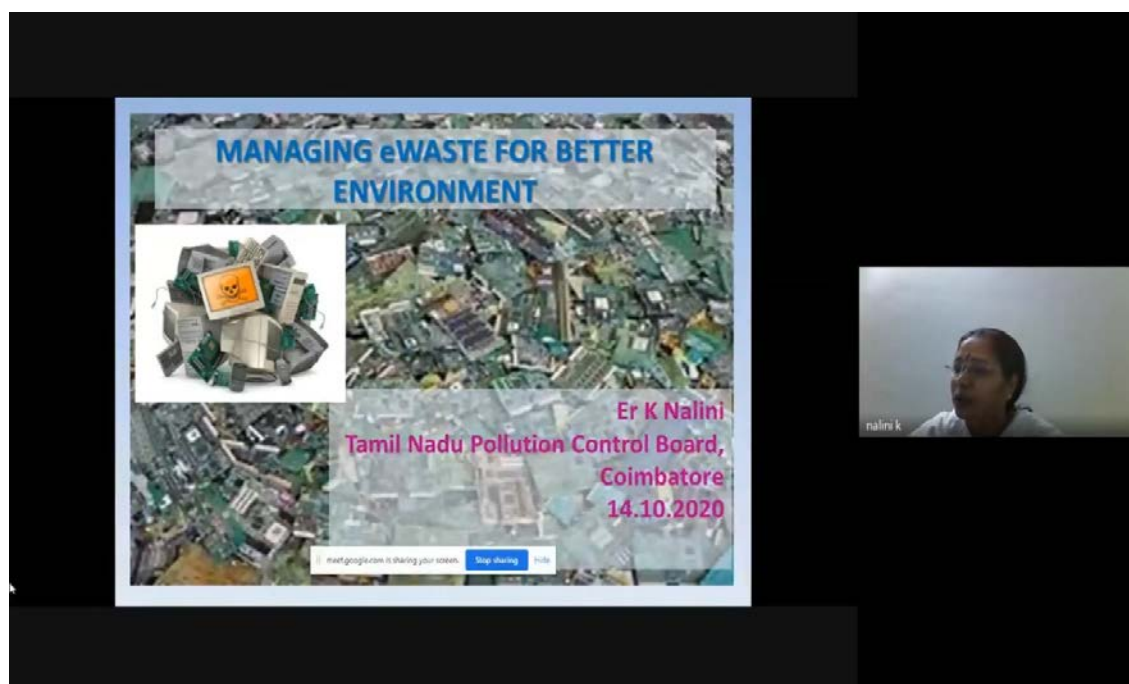
International E-Waste Day was organized in 2018 by the WEEE Forum with the support of its members. The day is used to raise the public profile of e-waste recycling and encourage consumers to recycle their e-waste with the resulting increase in e-waste recycling rates on the day itself and into the future.

As a part of the “International E-Waste Day”, the Puducherry ENVIS Hub Centre organized an online webinar on 14.10.2020.

Shri. S. Devaanandan, Assistant Environmental Engineer (AEE), Puducherry Pollution Control Committee welcomed the Experts and participants and also gave a brief introduction and highlighted the management of E- Waste.

Webinar Session 1

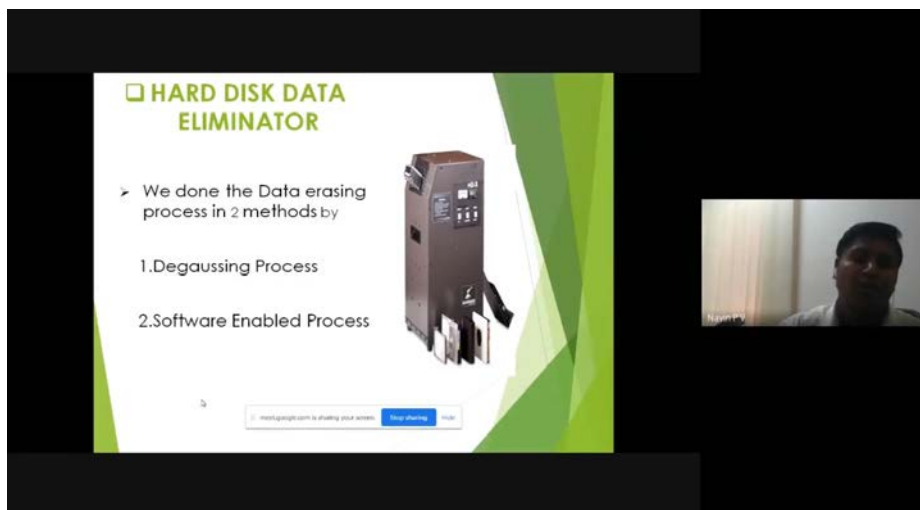
Smt. K. Nalini, Environmental Engineer (EE) TNPCB, Coimbatore delivered expert lecture on **“E-Waste Management for Better Environment”** on the eve of International E-Waste Day. The participants enthusiastically participated in the above said event.



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Webinar Session 2

Shri. Navin, Technical Engineer, ViroGreen Indian Pvt. Ltd., Puducherry delivered expert lecture on **“E-Waste Management by ViroGreen”** on the eve of International E-Waste Day. The public and industries enthusiastically participated in the above said event. Nearly 190 participants participated in the event.



Awareness pamphlet were released through online during the occasion to spread the message about the impacts and management of E-Waste.

E - Waste Facts and Management	List of items in E- Waste	Impact of E-Waste
<p>What is E-Waste? 'E-waste' means discarded electrical and electronic equipment as whole or in part as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes. In India, E-waste is governed by E Waste (Management) rules 2016.</p> <p>To whom the rules are applicable? These rules are applicable to every producer, refurbisher, consumer or bulk consumer, collection centre, dismantler and recycler of e-waste involved in the manufacture, sale, purchase and processing of electrical and electronic equipment or components specified in schedule - I of these Rules.</p> <p>Who is a Bulk Consumer? Bulk consumer means bulk users of electrical and electronic equipment such as Central Government or State Government Departments, public sector undertakings, banks, educational institutions, multinational organisations, international agencies, partnership and public or private companies and health care facilities.</p> <p>What is the responsibility of office regarding e-waste? All the bulk consumer shall segregate E-Waste from other waste and store it in separate bins/ yard. Bulk consumers shall maintain records in form 2 and submit annual returns in form -3 to PPCC.</p> <p>How the E-Waste has to be disposed? E-Waste may be disposed through buy - back arrangement to the authorized producers or PPCC authorized Collection Centre.</p> <div style="display: flex; justify-content: space-between;"> <div> <p>Do's</p> <ul style="list-style-type: none"> Drop your E-waste at authorized collection point. Drop your household E-Waste at each Domestic Collection Centre designated by municipality / Commune panchayat. Use LED, avoid fluorescent / Mercury lamps. Channelize your E-Waste to authorized recycler. </div> <div> <p>Don't</p> <ul style="list-style-type: none"> Do not tamper E-waste. Do not dispose E-waste to scrap dealers / rag picker. Do not mix E-waste with general waste and don't put in garbage bins. </div> </div>	<p>List of items in E- Waste</p> <div style="display: grid; grid-template-columns: 1fr 1fr; gap: 10px;"> <div>Centralised data processing: Mainframes, Minicomputers</div> <div>Personal Computing: Personal Computers</div> <div>Personal Computing: Laptop Computers</div> <div>Personal Computing: Notebook Computers, Notepad Computers</div> <div>Printers including cartridges</div> <div>Copying equipment</div> <div>Electrical and electronic typewriters</div> <div>User terminals and systems</div> <div>Facsimile, Telex</div> <div>Pay telephones, Cordless telephones, Cellular telephones and Answering systems</div> <div>Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology)</div> <div>Air-conditioners excluding centralised air conditioning plants</div> <div>Refrigerator</div> <div>Washing Machine</div> <div>Fluorescent and other Mercury containing lamps</div> </div>	<p>Impact of E-Waste</p> <div style="display: flex; justify-content: space-between;"> <div> <p>on Environment</p> <ul style="list-style-type: none"> Pollution of Ground water Acidification of soil Air Pollution Emission of heavy metals in local environment </div> <div> <p>on Health</p> <ul style="list-style-type: none"> DNA Damage Lung Cancer Damage to heart, liver and spleen Chronic damage to the brain Asthmatic Bronchitis </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div> <p>Scan to view Collection Centre list & link</p> </div> <div> <p>Scan to view Rule</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>ENVIS HUB CENTRE PUDUCHERRY PUDUCHERRY POLLUTION CONTROL COMMITTEE Funded by Ministry of Environment, Forest & Climate Change Govt, New Delhi</p> <p>(0413) 2201256 http://envispy.in/ 3rd Floor, Housing Board Complex, Anna Nagar, Puducherry - 5. ENVIS HUB - Puducherry envispuducherry envishubpy</p> </div>

17.12 CELEBRATION OF SALIM ALI'S BIRTH ANNIVERSARY

Salim Moizuddin Abdul Ali was born on 12th November 1896 in Mumbai. He is one of the greatest ornithologists & naturalist and is also known as the “Birdman of India”. The first Indian to conduct systematic bird surveys across India and his books on birds helped to develop ornithology in the sub-continent. This Birdman of India was the key figure behind the Bombay Natural History Society, after 1947. He was awarded India's second highest civilian honour, the Padma Vibhushan in 1976.

Wetland Walk:

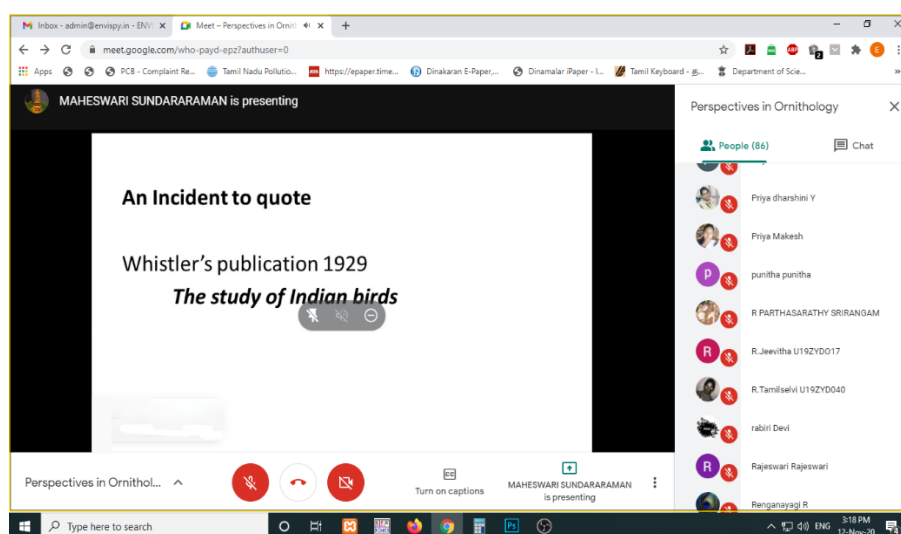
Dr. M. Bubesh Guptha, Founder Director, Universal Eco Foundation, Puducherry delivered outdoor talk at Oussudu Lake on **“Conservation and Importance of Birds with Special Reference on Identification Techniques”** on the eve of Salim Ali's Birth Anniversary on 12.11.2020 at 10.00 AM. General Public and Students participated.

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Webinar:

Dr. A. S. Maheswari, Assistant Professor, Department of Zoology, Seethalakshmi Ramaswami College, Tiruchirappalli, Tamil Nadu delivered expert lecture on **“Perspectives in Ornithology”** on the eve of Salim Ali’s Birth Anniversary on 12.11.2020 at 3.00 PM. Nearly 86 participants participated in the event.

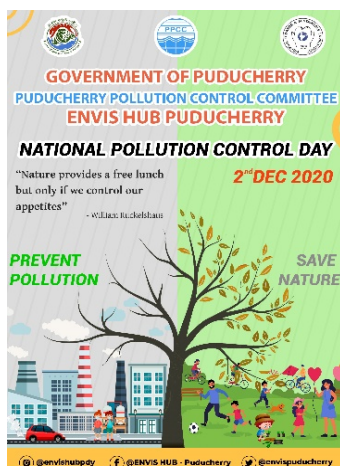
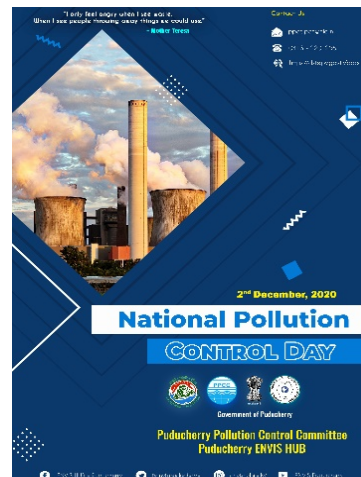
As a part of “Salim Ali’s Birth Anniversary”, the Puducherry ENVIS Hub Centre organized an Outdoor Talk and Webinar on 12.11.2020.



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17.13 CELEBRATION OF NATIONAL POLLUTION CONTROL DAY

Puducherry ENVIS Hub released awareness posters on the eve of National Pollution Control Day on 02.12.2020. The infographic products created awareness among the peoples about environmental pollution and its disastrous consequence.



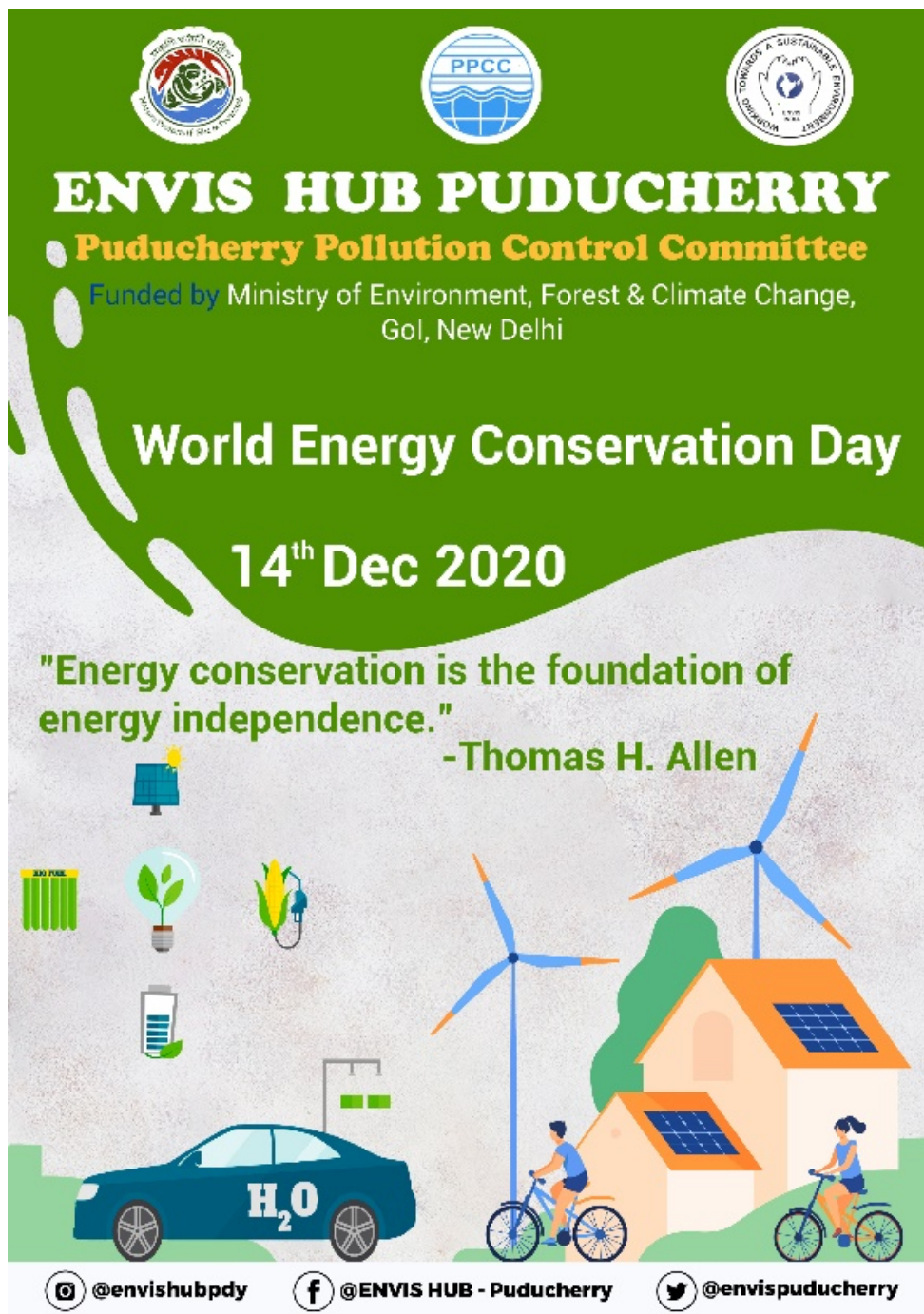
17.14 CELEBRATION OF WORLD SOIL DAY

Puducherry ENVIS Hub released awareness posters digitally on the eve of World Soil Day on 05.12.2020.



17.15 CELEBRATION OF WORLD ENERGY CONSERVATION DAY

Puducherry ENVIS Hub released awareness posters on the eve of World Energy Conservation Day on 14.12.2020.



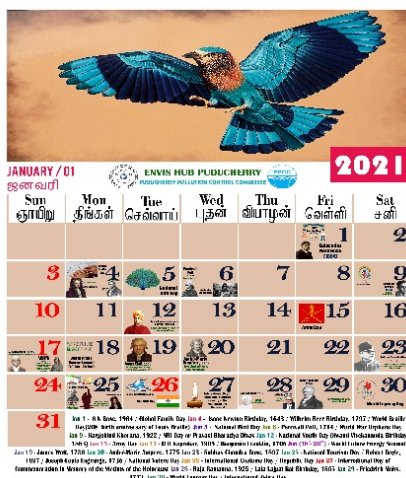
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17.16 RELEASE OF VALUE-ADDED KNOWLEDGE PRODUCTS

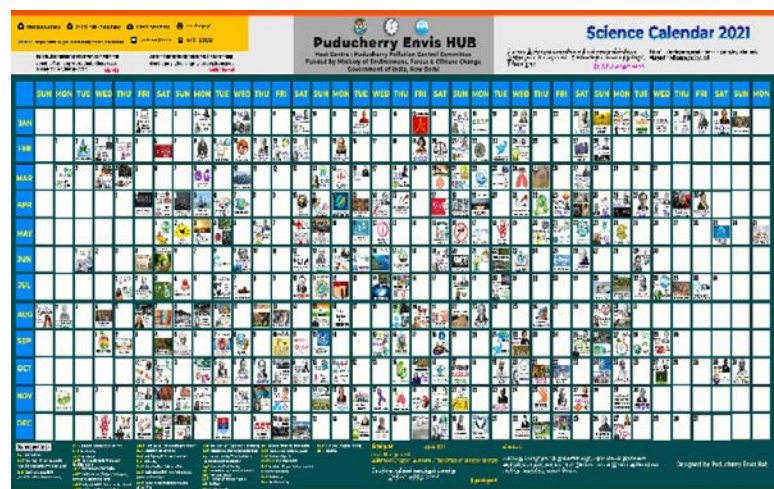
Smt. Smitha. R, I.A.S., Chairman, Puducherry Pollution Control Committee (PPCC) released Monthly and Yearly Science Calendar, 2021 in the presence of Shri. S. Dinesh Kannan, IFS, Member Secretary, PPCC on 04.01.2021 prepared by Puducherry Envis Hub. This calendar will emphasis on the importance of highlighted days in the respective month for carrying out necessary environmental, Science related activates/celebration/events.



SCIENCE CALENDAR



Monthly

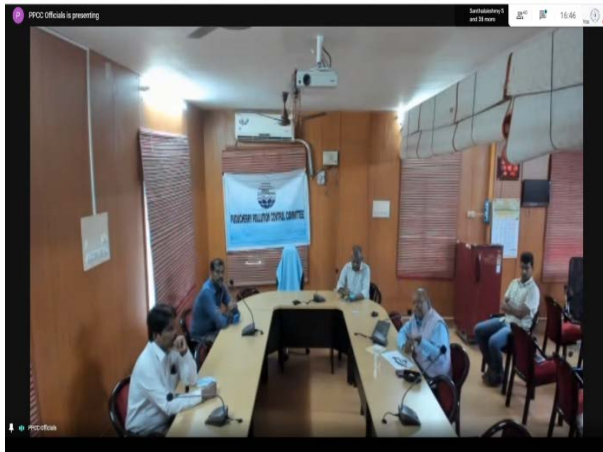


Yearly

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17.17 Celebration of BHOGI FESTIVAL

Puducherry Pollution Control Committee in collaboration with Puducherry Envis Hub organized webinar on the topic “**Celebrating Eco-Friendly Bhogi**” delivered by Dr. V. Gopal, Principal, College of Pharmacy, Mother Theresa Post Graduate & Research Institute of Health Sciences held on 12.01.2021. The number of participants were 92.



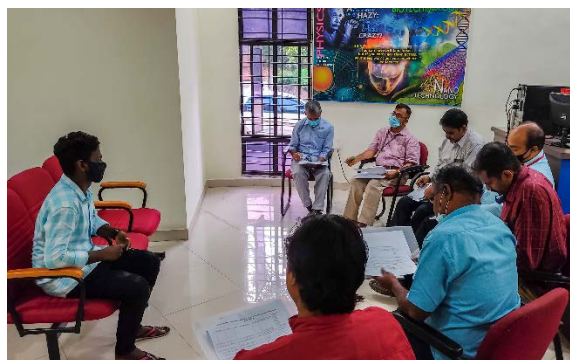
Awareness posters were released digitally during the occasion to spread the message of celebrating pollution free Bhogi.



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17.18 SELECTION COMMITTEE MEETING ON 27.01.2021

Selection Committee Meeting for the certificate course in “Pollution Monitors: Air and Water Pollution” held on 27.01.2021 at Auditorium Hall, Dr. Abdul Kalam Science Centre and Planetarium (Dr. AKSC&P), Lawspet, Puducherry organized by Puducherry Envis Hub.



17.19 CELEBRATION OF WORLD WETLANDS DAY ON 02.02.2021

OUTDOOR WALK

Puducherry ENVIS Hub organized outdoor walk at Ariyankuppam River on the eve of World Wetlands Day held on 02.02.2021. Dr. M. Bubesh Guptha, Environmentalist, Founder Director, Universal Eco Foundation, Puducherry explained the “Importance of Wetlands and Water” to the participants.



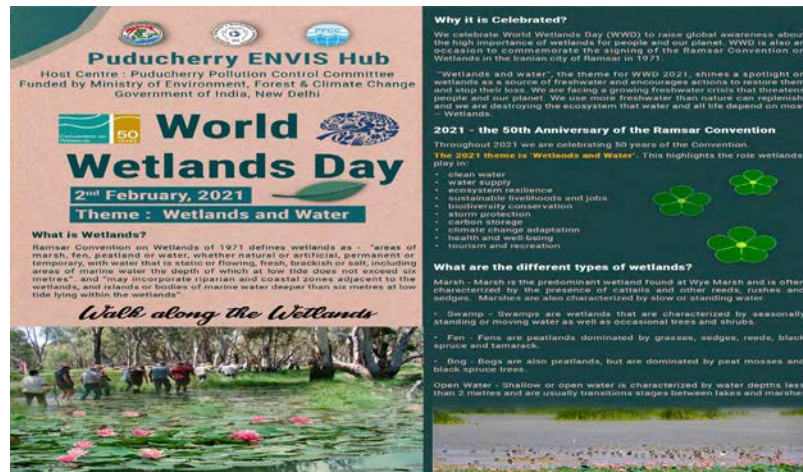
WEBINAR SESSION

Conducted webinar on the eve of World Wetlands Day, wherein, Dr. M. Bubesh Guptha, Environmentalist, Founder Director, Universal Eco Foundation, Puducherry delivered expert lecture on “Importance of Wetlands & Wetland Birds in Puducherry Region” held on 02.02.2021. The number of participants were 86.

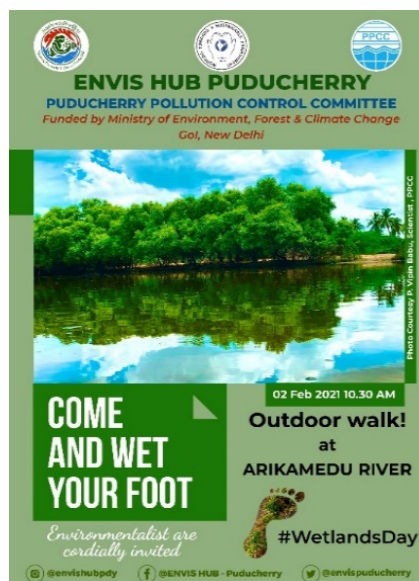
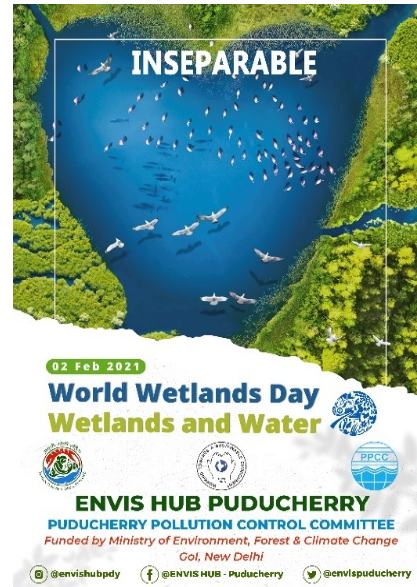
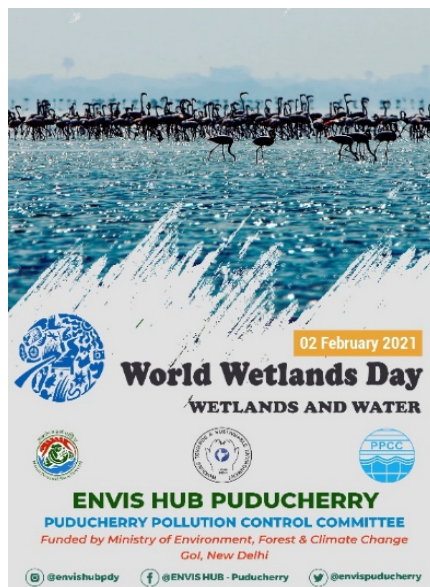


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Brochure



Posters



17.20 CELEBRATION OF NATIONAL SCIENCE DAY ON 28.02.2021

On the occasion of National Science Day held on 28.02.2021, the Member Secretary, Puducherry Pollution Control Committee, officials from DST&E, ENVIS Team along with the GSDP Trainees garlanded the great Indian Physicist Sir CV Raman statue followed by webinar under the theme “Future of STI: Impacts on Education, Skills and Work” organized by Puducherry Council for Science, Technology & Environment, Department of Science, Technology & Environment, Government of Puducherry.

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Webinar Session

Attended webinar on the eve National Science Day, wherein, Dr. S. Vincent, Former Member Secretary, Tamilnadu State Council for Science & Technology, Chennai delivered the expert lecture on “Future of STI: Impacts on Education” & Dr. Joseph Selvin, Professor & Head, Department of Microbiology, Pondicherry University, Puducherry delivered the expert lecture on “Future of STI: Impacts on Skills and Work” held on 28.02.2021 organized by Puducherry Council for Science, Technology & Environment, Department of Science, Technology & Environment, Government of Puducherry.

YOUTUBE VIDEO RELEASING:

Coronavirus (COVID-19) Prevention



Target Groups/ Attendees/ Participants - 100 publics, 73 views

Link: https://youtu.be/9wo03hBmtf8?list=PLfKfLbNNLXGLj75v47J-25CKH503G_HT1

COVID19

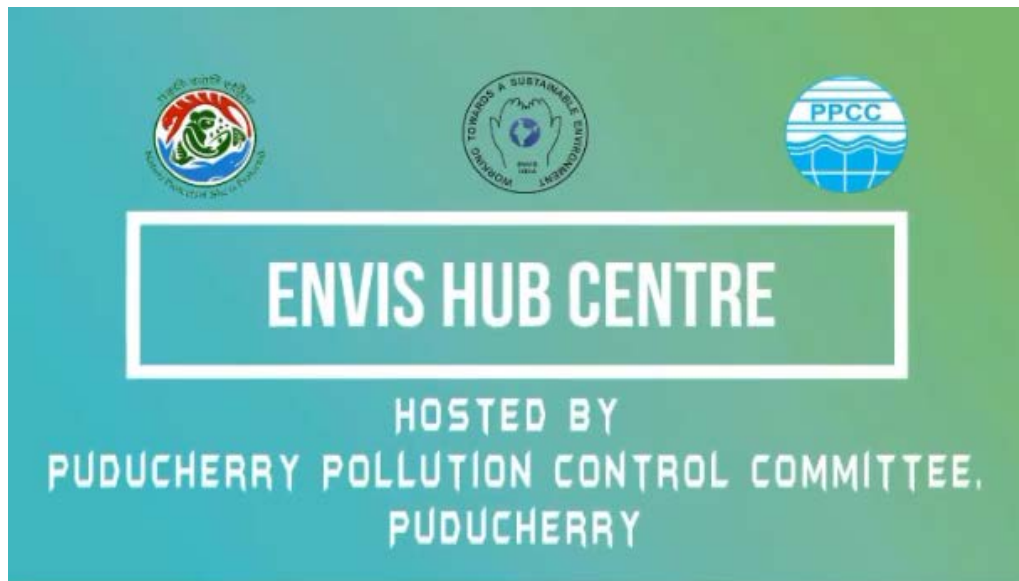


Target Groups/ Attendees/ Participants - 100 publics, 32 views

Link: https://youtu.be/tm0o9tMAeG8?list=PLfKfLbNNLXGLj75v47J-25CKH503G_HT1

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COVID 19 Stickman



Target Groups/ Attendees/ Participants - 100 publics, 22 views

Link: https://youtu.be/YGUgKS0kDHw?list=PLfKfLbNNLXGLj75v47J-25CKH503G_HT1

Hyllus (spider)

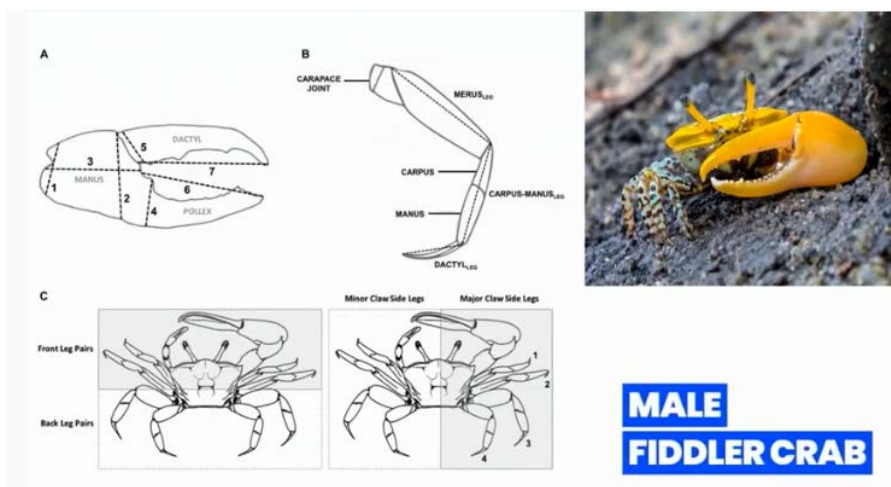


Target Groups/ Attendees/ Participants - 100 publics, 09 views

Link: https://youtu.be/cZMhyu5bWEM?list=PLfKfLbNNLXGLj75v47J-25CKH503G_HT1

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The Nature of Fiddler Crabs



Target Groups/ Attendees/ Participants - 100 publics, 334 views

Link: <https://youtu.be/tKePb4oqch4?list=PLfKfLbNNLXGLj75v47J-25CKH503G> HT1

Released Mobile App

Puducherry Envis Hub, Puducherry Pollution Control Committee released Mobile Application i.e. “Patchi ENVIS HUB” on the eve of WED, 2020. This application is designed to highlight the photos of birds along with identification keys, voice, size and habitats of the birds present in the Puducherry region.



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TRAINING ATTENDED

- Envis Team participated in the short Online Certificate Course on “Remote Sensing & GIS Technology and Application” conducted by the Indian Institute of Remote Sensing (IIRS) from 13.06.2020 to 01.07.2020.
- Envis Team attended 6 days online GIS Training from 27.07.2020 to 01.08.2020 organised by World Wide Fund ENVIS, New Delhi.

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18. Status of existing hardware:

	Hardware item	Specification	Sanction Order with Date	Date of procurement
Procured from ENVIS Grant	Desktop-Acer-1	Intel® Corei7-2600cpu@3.40 3.40 GHZ Installed Memory-2.00 GB 32-Bit Operating system	No.11/77/2004-EI DATE:29-11-2013	04.07.2013
	Numeric-UPS-2Nos	Numeric Digital 600EX	do	15-07-2013
	Acer Laptop	TMP246 Computer Note Book, Intel Corei3	15.03.2016	18.03.2016
Procured from ENVIS Grant	Hp Laser Jet Pro MFP M128 fn	Printer Type - LaserJet; Functionality - Multi-Function (Print, Scan, Copy) , Scanner type - Flatbed; Printer Output - Black & White only	No. 23/18/2017-EI (Pt.III) 28.12.2017	30.06.2017

19. Status of utilization of grant in previous year (2020-2021) and reasons for shortfalls, if any:

	Head of Expenditure	Sanctioned amount (₹)	Actual Expenditure (₹)	Reasons for Shortfall/ Excess (if any)
Recurring Annual	Manpower	15,51,917.00	15,39,887.00	
	Others	4,65,300.00	3,29,385.00	
	Travel	-		
Non-Recurring (Hardware/ ISBEID/ Any Other)				
	Computer Purchase	-		

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20. Issues/ hurdles faced in undertaking ENVIS activities:

20.1	Release of Recurring grant (Manpower) for smooth functioning of Envis.
20.2	Non-recurring grant may be provided for procuring hardware(s)/ software(s) as required for regular activities and GRIDSS/NES in particular. We are operating with one laptop and a printer.
20.3	Hardship for getting Environmental Data for ISBEID from Line Departments even after several communication addressed to the Departments.
20.4	For GRIDDS Mapping, we are using GIS software - trial version. So, we are requesting to provide ARC-GIS (or) any completed full version software.
20.5	Revamp the Puducherry ENVIS Website
20.6	The DEO salary may be revised from Rs.12,100/- to Rs. 20,000/-

PUDUCHERRY ENVIS HUB
Puducherry Pollution Control Committee
3rd Floor, PHB Building,
Anna Nagar,
Puducherry - 605 005.

**ANNUAL
PROGRESS
REPORT
2020 - 21**

(1st April 2020 – 31st March 2021)



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 @envispuducherry

WATER IS THE DRIVING
FORCE OF ALL
NATURE