

ABOUT US:

- Poornam Ecovision Foundation works in solid waste management of cities and rural areas, only with the sustainable lifestyle.
- Through every project of Poornam, in one or the other way, we try to mitigate the challenges human kind is facing due to unmanageable waste.
- Poornam works on sanitary waste, E-waste and Plastic waste, Solid waste generated in MIDCs, and Fabric waste.
- We not only manage the waste sustainably, but also encourage people to minimize the waste through our two other projects- Awareness Initiatives and Green Consultancy.

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संपादकीय

नमस्कार,

या वर्षातील अखेरचे 'पूर्णमिदं' आपल्यापर्यंत पोहोचवताना अतिशय आनंद होत आहे. 2019 च्या सहा पत्रकांद्वारे 'पूर्णमिदं' च्या वाचकांपर्यंत पोहोचण्याचा चांगला प्रयत्न झाला, आपला प्रतिसाद ही चांगला आहे.

या अंकात, श्री हर्षवर्धन शेटे यांचे 'Climate Change and Urban Water Sustainability' चा पूर्वार्ध देत आहोत. आपल्या प्रतिक्रिया नक्की कळवाव्यात.

दि. 23 नोव्हेंबर रोजी पूर्णमचा वर्धापनदिनाचा कार्यक्रम आपल्या सर्वांच्या सहकार्यामुळे यशस्वी झाला. श्री. विद्याधर वालावलकर यांचे उत्स्फूर्त विचार श्रोत्यांनी तितक्याच आत्मियतेने स्विकारले. याच कार्यक्रमात, पूर्णमने 'पूर्णाहुती' ही योजना जाहीर केली, ज्यामुळे पूर्णमच्या कार्यात

आपल्या सर्वांना सहजरित्या सहभागी होता येईल. आपण सर्वांनी या योजनेत सहभाग नोंदवावा ही नम्र विनंति.

पुढील वर्षाचे 'पूर्णमिदं' नव्या स्वरूपात देण्याचा आमचा मानस आहे. नव्या सदरांचा सहभाग असलेले, आपल्या सर्वांचा सहभाग वाढवणारे असे 'पूर्णमिदं' सौ. राखी कुलकर्णी यांच्या संपादनाखाली प्रसिध्द होईल. आपल्यापैकी कोणाला यामध्ये लेखन करावयाचे असल्यास पूर्णमच्या कार्यालयाशी संपर्क करावा. धन्यवाद.

डॉ. राजेश मणोरीकर
मुख्य कार्यकारी अधिकारी
पूर्णम इकोव्हिजन फाऊंडेशन

Special drive at Oriental Marvel Society in PCMC: Great initiative at society level

Poornam Ecovision Foundation conducted E-waste and Plastic Waste collection drive on 24th November at Oriental Marvel Society located in Chinchwad. There was a great involvement of all society members to make drive successful. During this drive 67 Kg of E-waste and 44 Kg of Plastic waste were collected through 30+ donors. Nearly 50 children and more than 10 members from society took an active part in awareness. Drawing and quiz competition on waste management was also held for children. Children took an active part in competition and showed their overwhelming response for waste management activities.

Oriental Marvel Housing Society has formed a separate committee for waste management and they work sincerely for segregation of wet waste and dry waste in the society. Involvement of all society members was really an ideal effort that is being taken in PCMC territory. This is one of the cleanest societies in PCMC and they are now willing to meet Commissioner of PCMC to have certain defined program for dry waste collection in coordination with Poornam Ecovision Foundation.





Foundation day Celebration

Poornam Ecovision Foundation completed 5 glorious years of success in the field of Environment on 14th November. We thank all our partners associated with us throughout our journey for a cause. We celebrated this journey by organizing event on Saturday, 23rd November 2019. Event was attended by 150 people who included associates, volunteers, well wishers, advisory committee and Poornam team.

Program was started with Panchamahabhoot Poojan by respected guests followed by felicitation of guests. Dr. Rajesh Manerikar, CEO, Poornam Ecovision Foundation illustrated about journey of success in 5 years. On this occasion Poornam organized lecture by **Mr. Vidyadhar Walawalkar, who is founder director of "Paryavaran Dakshata Manch"**, which is an Environmental organization dedicated to Environment Education and Awareness Creation. He guided audience regarding approach towards environmental issues.

Chairperson present for the program was **Mr. Vidyadhar Purandare, Vice-president, Software Exporters Association of Pune (SEAP)** who explained how corporate companies are funding for good cause and how social organizations and corporate can work hand in hand for betterment of society and environment.

Mr. Krishnan Komandour (CEO, APCC) and Mrs. Madhuri Sahasrabudhe (Corporator, PMC) were present as Guest of Honour. Founder director of Poor-

nam Mr. Sachin Kulkarni delivered thanks giving speech. The program was held at 5.30pm to 7.30pm at K.B.Joshi institute 's hall in Cummins Engineering College for Women, Karvenagar, Pune. Various informative stalls regarding 5 projects run by Poornam were arranged outside hall.



Health Camp on Occupational hazards & treatment for waste workers

Occupational health hazards are commonly observed in waste workers due to unhygienic working conditions. Waste workers are integral part of society and their duties play important role in development of society. We as a society need to take care of their health. Poornam in association with NSDL Arogya Prakalpa, Lahuji Salve Arogya Kendra, Waluj MIDC, Mahindra Waste To Energy Solutions orga-

nized Health camp regarding occupational health hazards for waste workers on 24th November 2019. Camp was held at Jagrut Hanuman Mandir, Bajaj-nagar, Waluj, Aurangabad at 9 am to 12 pm.

About 68 waste workers from CIDCO (Waluj), Wadgaon, Waluj Pandharpur and Bajaj-nagar (Waluj) attended this camp. Program was inaugurated with Bharatmata Pujan. Dr.

Sudhakar Todkar was chief guest for entire program. He guided workers regarding precautions to be taken by workers and importance of Personal Protective Equipments through his speech. During this camp, Chest X-ray, PFT, ECG and general check-up were carried out and medical guidance was provided by expert doctors at Dr. Hegadewar Hospital.

Climate Change and Urban Water Sustainability

The phrase 'Climate Change' is being extensively used; everyone uses it, from policy makers, ministers to a school going kid. Many of us often read about climate change in newspapers. In order to understand the connection between climate change and urban water sustainability let us first understand what 'climate change' actually means. There are two terms in this phrase- climate and change. Climate gives general description about the weather of a place- how hot or cold the place is, how humid it is, how windy it is, whether rainfall is concentrated or distributed over year etc. Whereas, weather is a specific information about atmosphere of a place at a particular instance of time. E.g. when we say Pune has a hot semi-arid climate with average temperature ranging between 20-28 degree centigrade, we are talking about climate and if we say today's temperature in Pune is 18 degree centigrade with a possibility of rain, this is weather.

If we observe history of our mother earth, it can be said that it has been always changing and life system on it was adjusting with those changes and who were not able to adapt, they became extinct e.g. Dinosaurs. Thus, change is the only 'constant' in human and earth history. But, what matters most is the speed of this change. If the change slow and gradual, it is possible to adapt with it. Let's look at change in global average temperature, the last 10000 years have been a period of exceptional stability, with less than 1 degree centigrade variation in global average temperature. However, the last 150 years have seen a significantly accelerated rise of global average temperature by nearly 1 centigrade; this is expected to have a serious impact on life on the earth.

It is quite evident that these rapid changes were triggered by anthropogenic activities, especially after industrial revolution in the mid of 18th century. What is the connection between climate change and industrial revolution? The Earth is habitable and supports life mainly because of its moderate average temperature; this is possible only because of the warming effect of greenhouse gases in the atmosphere that trap the heat reflect-

ed from the earth's surface. Carbon Dioxide, Methane, Nitrous Oxide, Hydrofluorocarbons, Ozone and water vapour are main greenhouse gases that are causing global warming. The greenhouse effect became significant after industrial revolution.

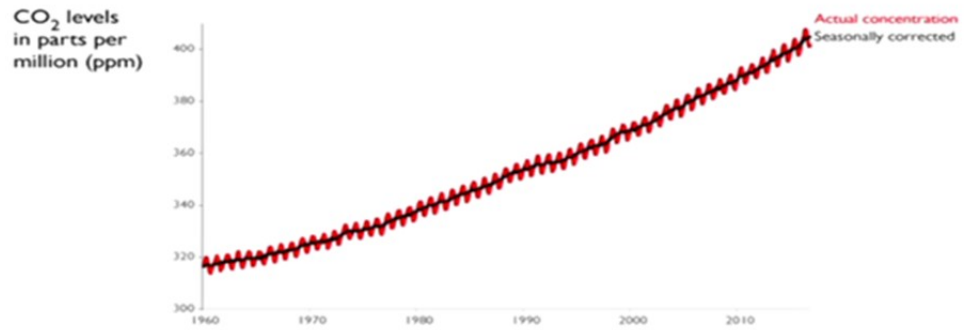
If we observe two graphs given on next page, the correlation between content of Carbon Dioxide (which is major greenhouse gas) and global land ocean temperature anomaly. The temperature anomaly increases with the Carbon Dioxide content.

The 3rd graph on next page shows the correlation between human factors and global temperature change. Few of the predicted consequences of climate change by Intergovernmental Panel on Climate Change (IPCC) are increased frequency of heavy precipitation, changes in seasonality and pattern of rainfall, increase in frequency of extreme weather events, rise in sea level in resultant coastal flooding and damage, increase in vector-borne diseases, decrease in food productivity for temperature rise greater than 3 degree centigrade, malnutrition, increased migration and conflicts etc. Pune city and Maharashtra faced increased frequency of heavy precipitation and changes in seasonality and pattern in rainfall during monsoon season of 2019. How to deal with these changes?

We can deal with climate change in two ways- mitigation and adaptation. Mitigation means addressing the causes before the incidence of extreme event. Adaptation means adapting with the effects and trying to live with after an event occurs. Recent report by NITI Ayog on water crisis stated that around 21 major Indian cities (Delhi, Bengaluru, Chennai, Hyderabad and others) are racing to reach zero groundwater levels by 2020, affecting access for 100 million people. This shows the urgency with which we should look at urban water crisis and should think of coping mechanisms and strategies to deal with this crisis.

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Atmospheric CO₂*



*Measured at Mauna Loa

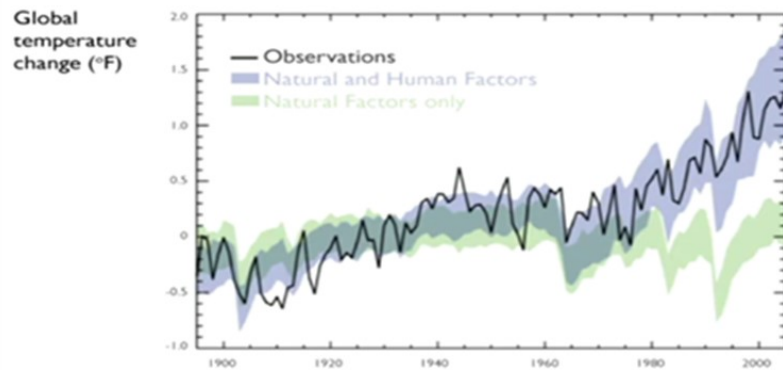
Source: National Ocean and Atmospheric Administration Earth Systems Research Laboratory, 2016

Global Land Ocean Temperature Index



Source: National Aeronautics and Space Administration, Goddard Institute for Space Studies 2016.

Separating Human and Natural Influences on Climate



Source: Walsh et. al. 2016.

Review of November-December

E-waste and Plastic Waste

Under this project, we collect electronic and electrical waste and plastic waste and hand-over it to MPCB authorized recyclers. The waste which can be reused is refurbished and donated to needy organizations. Poornam conducts E-waste and plastic waste collection drives every Saturday-Sunday and weekly runs total 25 permanent waste collection centers around the Pune city and Pimpri-Chinchwad Municipal Corporation, with support of Cummins India Foundation.

In month of September, Poornam team conducted total 12 society collection drives. In addition we successfully carried out two commercial drive and two special drives. In last two months, we successfully conducted 3 collection Megadrives in Hadapsar and Sahakarnagar Area. Poornam team along with volunteers made efforts to aware people for donation of E-waste and plastic waste. Total E-waste and plastic waste collection at drives and centers is 3.8 tons and 1 ton respectively.

Awareness initiatives

Along with activities for city's waste management Poornam spread awareness regarding waste management and environment.. Making citizens aware is important for accelerating public participation in managing waste. Poornam conducts awareness activities at various levels like school, college, society and slum level. We conducted lectures on plastic waste and environment in 26 schools. We reached around 2489 students through these awareness sessions. In addition to school awareness programs Poornam in association with Sevasahayog is conducting

training and awareness sessions in 5 slums. First training session regarding Waste segregation for trainees from all 5 slums was carried out in December.

Fabric Up-cycling

Indian culture has always been developed in the favor of sustainability of environment, inclusive of 3Rs- Reduce, Re-use, and Recycle. Fabric Up-cycling is also one of the Poornam's projects which takes this concept to the wider level. Similar to the E-waste and plastic waste, fabric waste- clothes which are not in use are collected at Poornam. Re-usable clothes are donated while remaining are upcycled into fashionable products- Purses, File Folder, Travel bags, Doormats, Yoga mats, Diaries, *Sataranjis*, and several other products as per demand. Some part of this upcycling process is carried out at Poornam's manufacturing unit, while rest is done by several Self Help Groups. In this way, Poornam not only reduces the fabric waste, but also produces alternatives for plastic products and generates livelihoods for SHGs. To promote eco-friendly lifestyle and provide market platform for these Self Help Groups, Poornam arranges stalls in different exhibitions, corporate companies, societies.

In last 2 months, total 9 stalls were displayed at various places in pune which included Sustainable Lifestyle Store,

Bharati Vidyapeeth, Happy street, Pune Health & Sustainability Conference etc.

Sanitary Napkins Manufacturing

Sanitary waste is one of the prominent parts of municipal solid waste which adversely affects the management of MSW. Urban solid waste has issues due to unmanaged, open and unhealthy dumping of sanitary napkins whereas rural solid waste includes unhygienic clothes used as an alternative for sanitary napkin.

Hence, Poornam looks after the sanitary napkin waste generated in the ward no. 34 (Hingane-Wadgaon Bk) of Pune city as a part of waste management. We have installed sanitary napkin disposal machine in collaboration with ARAI, PMC and Sevavardhini. Capacity of disposal unit is 800-1000 napkins per day. As a part of disposal project, total 21056 used sanitary napkins were collected from 190 collection points in the area, and disposed off scientifically.

For the rural sector, Poornam, in association with Cummins India Foundation, has established a sanitary napkin manufacturing plant. At present, the plant gives livelihood to 10 women and is taking efforts to spread a word about clean and healthy menstrual hygiene habits.

The total sanitary napkins production in last two months is 15,187 and we sold 476 sanitary napkin packets. In rural area, usage percentage of sanitary napkins is less. We promote usage of napkins by conducting awareness programs in schools, colleges and Self Help Groups.

Green consultancy

Under this project we provide consultation regarding rainwater harvesting, wet waste and dry waste management at society, commercial and rural/town level. In Pune city, we run 4 composting plants and 1 rain-water harvesting plants in societies.

In collaboration with Waluj MIDC and Mahindra waste to energy solutions ltd, we have established Municipal Solid Waste collection and transportation system in residential and commercial area at Waluj MIDC.

In last two months, Poornam team collected 231 tons total wet waste and 269 tons total dry waste from residential and industrial area. In addition garden waste gets collected separately and it was about 13 tons. Mahindra has set up biogas plant in MIDC area where all wet waste collected gets diverted and from the dry waste recyclables like paper and plastic are channelized to recycling. Around 24 tons dry waste went to recycling.



Lectures at schools



Collection megadrive at Hadapsar

Our Associates



Poornam Ecovision Foundation

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Upcoming Events

E-waste & plastic waste collection megadrive at Wanawdi-Ramtekadi ward

Exhibition of winner students in Essay & drawing competition