EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 6
Issue: 9
127-130
Year: 2019

# ENVIRONMENT AND PUBLIC HEALTH IN ULAVAPADU

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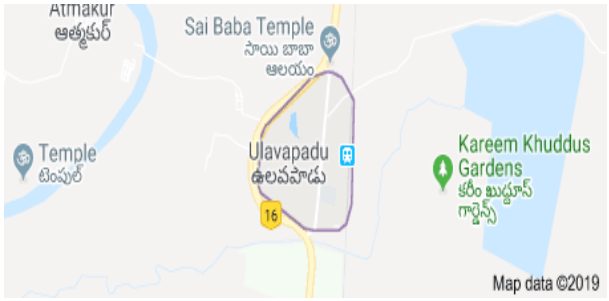
**Article Received on 23/06/2019** **Article Revised on 13/07/2019** **Article Accepted on 03/08/2019**

**ABSTRACT**
Environmental health is the branch of public health concerned with all aspects of the natural and built environment affecting human health. Environmental health is focused on the natural and built environments for the benefit of human health. The major subdisciplines of environmental health are environmental science; environmental and occupational medicine, toxicology and epidemiology. Toxicology studies how environmental exposures lead to specific health outcomes, generally in animals, as a means to understand possible health outcomes in humans. Outdoor air pollutionparticulate matter ozone nitrogen dioxide sulfur dioxide diesel exhaust asthma exposureinteractions between allergens and pollutants. Pearl Distillery Limited releases air pollution. If effects on public health in ulavapadu.

**KEYWORDS:** Toxicology Environmental public health nitrogen dioxide sulfur dioxide.

## INTRODUCTION

Ulavapadu is a village in Prakasam district of the Indian state of Andhra Pradesh. Ulavapadu is famous for variety of mangoes such as banginapalli, rasalu and also famous for a variety of Sapotas in Prakasam district and Nellore district. The fruits produced here are exported to various states and countries. It is the mandal headquarters of Ulavapadu mandal in Kandukur revenue division.

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Weather: 35 °C, Wind SE at 13 km/h, 49% Humidity
Hotels: 3-star averaging □ 1,724, 5-star averaging □ 2,774. View hotels
Local time: Friday, 3:49 pm
District: Prakasam
About Ulavapadu Mandal

Ulavapadu is a Mandal in Prakasam District of Andhra Pradesh State, India. Ulavapadu Mandal Head Quarters is Ulavapadu town. It belongs to Andhra region. It is located 48 KM towards South from District head quarters Ongole. 348 KM from State capital Hyderabad towards North.

Ulavapadu Mandal is bounded by by Singarayakonda Mandal towards North, Gudluru Mandal towards west, Kandukur Mandal towards North, Zarugumilli Mandal towards North. Kandukur City, Kavali City, Ongole City, Nellore City are the nearby Cities to Ulavapadu.

Pearl Distillery Limited has made a name for itself in the list of top suppliers of in India. The supplier company is located in Singarayakonda, near ulavapadu. Andhra Pradesh and is one of the leading sellers of listed products. Pearl Distillery Limited is listed in Trade India's list of verified sellers offering supreme quality of etc. Buy in bulk from us for the best quality products and service. And produces more air pollution surrounding areas.

Air pollutants, such as carbon monoxide (CO), sulfur dioxide ($SO_2$), nitrogen oxides (NOx), volatile organic compounds (VOCs), ozone ($O_3$), heavy metals, and respirable particulate matter (PM2.5 and PM10), differ in their chemical composition, reaction properties, emission, time of disintegration and ability to diffuse in long or short distances. Air pollution has both acute and chronic effects on human health, affecting a number of different systems and organs. It ranges from minor upper

respiratory irritation to chronic respiratory and heart disease, lung cancer, acute respiratory infections in children and chronic bronchitis in adults, aggravating pre-existing heart and lung disease, or asthmatic attacks. In addition, short- and long-term exposures have also been linked with premature mortality and reduced life expectancy. These effects of air pollutants on human health and their mechanism of action are briefly discussed.

**Description**

Those aspects of the human health and disease that are determined by factors in the environment is called environmental health. It also refers to the theory and practice of assessing and controlling factors in the environment that can potentially affect health.

Environmental health as used by the WHO Regional Office for Europe, includes both the direct pathological effects of chemicals, radiation and some biological agents, and the effects (often indirect) on health and well being of the broad physical, psychological, social and cultural environment, which includes housing, urban development, land use and transport.

Five basic disciplines generally contribute to the field of environmental health: environmental epidemiology, toxicology, exposure science, environmental engineering, and environmental law. Each of these disciplines contributes different information to describe problems and solutions in environmental health, but there is some overlap among them.

Environmental epidemiology studies the relationship between environmental exposures (including exposure to chemicals, radiation, microbiological agents, etc.) and human health. Observational studies, which simply observe exposures that people have already experienced, are common in environmental epidemiology because humans cannot ethically be exposed to agents that are known or suspected to cause disease. While the inability to use experimental study designs is a limitation of environmental epidemiology, this discipline directly observes effects on human health rather than estimating effects from animal studies.

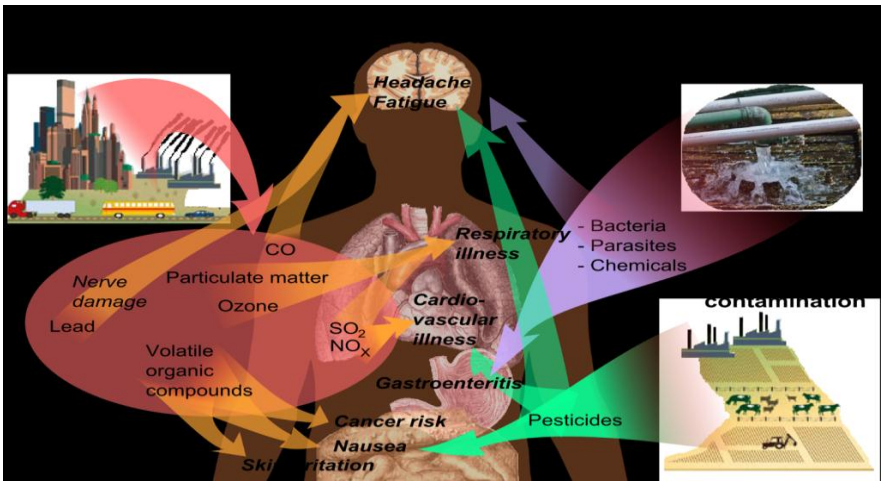
Toxicology studies how environmental exposures lead to specific health outcomes, generally in animals, as a means to understand possible health outcomes in humans. Toxicology has the advantage of being able to conduct randomized controlled trials and other experimental studies because they can use animal subjects. However there are many differences in animal and human biology, and there can be a lot of uncertainty when interpreting the results of animal studies for their implications for human health.

Information from epidemiology, toxicology, and exposure science can be combined to conduct a risk assessment for specific chemicals, mixtures of chemicals or other risk factors to determine whether an exposure poses significant risk to human health (exposure would likely result in the development of pollution-related diseases). This can in turn be used to develop and implement environmental health policy that, for example, regulates chemical emissions, or imposes standards for proper sanitationActions of engineering and law can be combined to provide risk management to minimize, monitor, and otherwise manage the impact of exposure to protect human health to achieve the objectives of environmental health policy.

Air quality, including both ambient outdoor air and indoor air quality, which also comprises concerns about environmental tobacco smoke.Biosafety Climate change and its effects on health.Disaster preparedness and response. Food safety, including in agriculture, transportation, food processing, wholesale and retail distribution and sale.

Hazardous materials management, including hazardous waste management, contaminated site remediation, the prevention of leaks from underground storage tanks and the prevention of hazardous materials releases to the environment and responses to emergency situations resulting from such releases.

**Air Pollution effect on health**



**Environmental health profession**

Environmental health professionals may be known as environmental health officers, public health inspectors, environmental health specialists, environmental health practitioners, or sanitarians. Researchers and policy-makers also play important roles in how environmental health is practiced in the field. In many European countries, physicians and veterinarians are involved in environmental health.[citation needed] In the United Kingdom, practitioners must have a graduate degree in environmental health and be certified and registered with the Chartered Institute of Environmental Health or the Royal Environmental Health Institute of Scotland, practitioners in environmental health are required to obtain an approved bachelor's degree in environmental health along with the national professional certificate, the Certificate in Public Health Inspection (Canada) CPHI(C )Many states in the United States also require that individuals have a bachelor's degree and professional licenses in order to practice environmental healthCalifornia state law defines the scope of practice of environmental health as follows.

"Scope of practice in environmental health" means the practice of environmental health by registered environmental health specialists in the public and private sector within the meaning of this article and includes, but is not limited to, organization, management, education, enforcement, consultation, and emergency response for the purpose of prevention of environmental health hazards and the promotion and protection of the public health and the environment in the following areas: food protection; housing; institutional environmental health; land use; community noise control; recreational swimming areas and waters; electromagnetic radiation control; solid, liquid, and hazardous materials management; underground storage tank control; onsite septic systems; vector control; drinking water quality; water sanitation; emergency preparedness; and milk and dairy sanitation pursuant to Section 33113 of the Food and Agricultural Code.

Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviors. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments. This definition excludes behavior not related to environment, as well as behavior related to the social and cultural environment, and genetics. – World Health Organization.

Environmental health and protection refers to protection against environmental factors that may adversely impact human health or the ecological balances essential to long-term human health and environmental quality, whether in the natural or man-made environment. – National Environmental Health Association.

Environmental Health is the field of science that studies how the environment influences human health and disease. "Environment," in this context, means things in the natural environment like air, water and soil, and also all the physical, chemical, biological and social features of our surroundings.

The man-made, or "built," environment includes physical structures where people live and work such as homes, offices, schools, farms and factories, as well as community systems such as roads and transportation systems, land use practices and waste management. Consequences of human alteration to the natural environment, such as air pollution, are also parts of the man-made environment.

**Outdoor Air Quality**

Poor air quality is linked to premature death, cancer, and long-term damage to respiratory and cardiovascular systems. Progress has been made to reduce unhealthy air emissions, but in 2008, approximately 127 million people lived in U.S. counties that exceeded national air quality standards.2 Decreasing air pollution is an important step in creating a healthy environment.

**Surface and Ground Water**

Surface and ground water quality concerns apply to both drinking water and recreational waters. Contamination by infectious agents or chemicals can cause mild to severe illness. Protecting water sources and minimizing exposure to contaminated water sources are important parts of environmental health.

**Toxic Substances and Hazardous Wastes**

The health effects of toxic substances and hazardous wastes are not yet fully understood. Research to better understand how these exposures may impact health is ongoing. Meanwhile, efforts to reduce exposures continue. Reducing exposure to toxic substances and hazardous wastes is fundamental to environmental health.

These hazards can impact health and safety. Maintaining healthy homes and communities is essential to environmental health.

i) Impact on Air environment Construction phase: Temporary occurrence of emissions due to construction equipment, transport of construction materials, dust from handling of construction materials etc., would be present for short period. Emission of pollutants like CO, SO2, NOx from the vehicles moving with construction materials, running machineries, operating DG sets and other machineries like dredger, concrete mixer. Operation phase: The impact during the operational phase is minimum.

ii) Impact on Noise environment Construction phase: Noise generated from construction activities will be predominantly confined within project site and will impact construction workers at site, however PPE will be provided to personnel employed. Impacts

due to these activities would be shortterm in nature and localized. Noise and vibration produced from vehicular movement and operation of heavy machineries. Noise generated from dredging will be short term. Operation phase: Generally, noise is generated due to continuous operation of the high speed machinery like RO high pressure pumps & pressure exchangers, intake well pumps, compressors and blowers. The noise levels of these equipment and machinery are in the range of 90-95 dB (A).

iii) Impact on Water environment Construction phase: Usage of more ground water and surface water for domestic consumption by the workers and for construction purpose. Contamination of ground water and surface water due to the pollution induced by construction waste and domestic waste. There will be more water required during operation for sprinkling, cleaning etc. Sanitary wastes will be generated by regular workers within the project area. Operation phase: The waste generated during operation may contaminate Surface water and Ground water.

iv) Impact on Land environment Construction phase: There will be a generation of minimal solid waste from labor camp set up for construction activities. Spillage of construction material may affect soil quality. Operational phase: No solid waste will be generated during operation stage.

v) Impact due to Laying of pipelines in the sea In general, the laying of pipelines in marine environment will have following impacts. • Construction of temporary bund across the surf zone which will locally alter the shoreline, • Projection of pipeline and anchor blocks above the seafloor will cause restriction to the use of drift nets, • Presence of intake head and discharge ports above the seafloor will prohibit use of gill nets and drift nets, • Hindrance to local fishermen during fabrication of pipeline along beach, • Installation of diffuser in seabed and the jet plume discharge will locally alter the flow pattern within the initial mixing zone PDL INDOM.

• Improper design of outfall diffuser may reduce the mixing and increase the distance of mixing zone. • Improper design of outfall diffuser may cause interference with currents resulting in problem for the movement of boats sailing in the vicinity. vi) Impact due to Construction of seawater intake head The construction of seawater intake head inside the sea may cause the following impacts. • Impingement, entrapment and entrainment of fishes • Change in current pattern • Migration of benthic animals • Entry of plankton and larvae • Trapping of people if swimming in the vicinity • Restriction to fishing using drift nets • Hindrance to boat movement.

## CONCLUSION

The health effects of air pollution have been subject to intense study in recent years. Exposure to pollutants such as airborne participate matter and ozone has been associated with increases in mortality and hospital admissions due to respiratory and cardiovascular disease. These effects have been found in short-term studies, which relate day-to-day variations in air pollution and health, and long-term studies, which have followed cohorts of exposed individuals over time. Effects have been seen at very low levels of exposure, and it is unclear whether a threshold concentration exists for particulate matter and ozone below which no effects on health are likely. In this review, we discuss the evidence for adverse effects on health of selected air pollutants.

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