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CONTRIBUTION OF PHYSICS TO ENVIRONMENTAL POLLUTION

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ABSTRACT

Physics to environmental pollution is described in this article as the branch of physics concerned with measuring and analyzing interactions between organisms and their surroundings. This also addresses extensively renewable sources of energy, their physical limitations, and how we need to use science and engineering as instruments to solve problems rather than opinion and politics.

KEYWORDS: *Physics, Environmental Physics, Environmental Pollution, Pollution.*

INTRODUCTION

In fact, due to environmental contamination, the earth can not recover its equilibrium. Human force created life on earth and killed it. Human plays a vitally important role in environmental degradation. Today, the physical world faces numerous challenges because of different human activities. Such environmental issues are directly related to varying physics laws. Many of the laws suggest that fossil fuels are not 100 percent effective, and there are numerous technologies that can increase these fuels ' overall efficiency.

There has been a lot of debate about the relationship between the environment and its social and physics problems and their application. Many environmentalists are trying to figure out how the production of sensors, the management and storage of radioactive materials, energy efficiency and the creation of energy savings impact the environment.[1-6]

WHAT IS EARTH'S ENVIRONMENT STUDY IMPORTANT?

The environment we live is called the natural world. Yet in every way the natural environment is no longer' normal' with nuclear weapons, rockets, hazardous substances and other human activities. How is Earth's environment research so critical then?

Okay, then let me remind you that we humans are still living in planet Earth's environment and these humans are the prime criterion. Everything that happens to the world has the same effect on us. Also if you are not worried about livestock, plants and other organisms of the environment, but the study of an environment is so important for the life of human beings[1].

HOW DOES PHYSICS HELP US RESEARCH THE ENVIRONMENT?

No other science will avoid physics (or chemistry), since all matter consists of molecules. Since physics is the study of how matter behaves and responds to various forcings and aspects of the planet and the universe, physics has significant implications for the environmental sciences. There are various ways in which physics helps us to study the environment. But here we are going to discuss only the important ones.

- Measurements can be taken from a long distance with remote sensing devices, usually from satellites or planes in orbit. Space photography can also qualify as remote sensing. A lot of data can be quickly obtained by reflecting the laser light off the Earth's atmosphere. It helps us identify the depth of seabeds or land height, or even river and stream speeds and directions.

  Remote sensing has also allowed us to calculate directly the heat emitted by the Earth using infrared satellites, and to confirm with real data that the Earth is currently consuming more heat than it is emitting— more evidence of climate change. It's also how we calculate the scale and thickness of the Earth's ice sheets year after year.
- **Climate change:** While few physicists are actively striving to become climate scientists, many today are focusing on some of the fundamental problems caused by our changing environment and looking into possible solutions. The physics of our environment, atmosphere, and ocean cycle system[3] temperature rises all determine a variety of things like water system fluid movements such as oceanic oscillations, and how environments can respond to changes in atmospheric chemistry. Physics can explain how climate changes and the long-term impact on both land and marine ecosystems.
- **Remote Sensing Satellite:** Using infrared satellites we can measure the heat emitted by the Earth directly. Every year we can also calculate the scale and thickness of the ice sheets on the surface of the Earth.
- **Renewable energy:** Physics ' contribution to the environmental sciences is no better proven than in the production of renewable energy. Solar panels and solar arrays, for example, transform light (for panels) and heat (for arrays) into electricity through chemical processes we define through physics[4]. Physics has also been central in the creation of turbines-the science behind wind farms which also generate electricity. Last but not least, physics can be used to measure the amount of energy generated by biofuel processing and burning just as it has for fossil fuels.
- **Spectroscopy:** It is an excellent tool that allows us to learn about the gasses found in various atmospheric layers. We will get to know a dead tree's estimated age too.
- **Pollution and Human Health:** As with climate change, physics is essential to understanding phenomena and airborne emissions spreading. It has major public health consequences and the degree and severity of other disorders, everything from asthma to lung cancer[5]. Physicists and physicists quantify aerial contaminants, introduce and improve mitigation approaches and analyze what is an unacceptable amount.
- **Fluid Dynamics:** This theory of physics allows one to understand and predict what happens in the atmosphere and in the sea. Using this theory of strain, density and temperature physics we can easily understand why the seas and rivers are moving the way they are. This theory can also be used to better predict weather.

  Physics helps one to foresee what happens when we alter the atmospheric gasses. We actually accept that the climate change that we are experiencing is caused by humans, but in the early 19th century, a scientist first proposed the possibility that such a thing is possible.
- **Satellite Technology:** Before satellites (Figure 1), we did not know our world as well as we should have before. Physics underpins the rockets that were used for sending satellites into orbit. Even flight depends on physics, as well as the required relation between speed and lift. Second, image / photography technology helps us to capture pictures by collecting light waves and generating the picture to be analyzed by environmental scientists, plus the transfer of data from aerial satellites to planet-based computing systems. This is true of thermal imaging and other forms that have allowed us to map our planet and weather events.
- **Seismology:** Understanding physics is also central to predicting and measuring seismological activity-and to prepare for such an environmental hazard as an earthquake or volcano[5], of course. It causes ripples on the ground, as the ground rises.Earthquakes which occur at sea generate tsunami-causing ripples in water. Some of the worst seismological disasters of the modern era occurred at Christmas 2004, when a

huge tsunami triggered by an earthquake under the ocean killed about 250,000 people. Physics can predict the effect of these activity on land and ocean based on the scale of the seismological activity.

Physics is/has:

- Calculated the distance between the Earth and bodies outside of our solar system including other stars within our field of view and other galaxies.
- Calculated the age of our sun and how long we can reasonably expect it to keep on burning.
- Vital for new technologies that all of us use every day from solar panel technology to wind turbine, engineering design, and the creation of new alloys and polymers.
- Responsible for nuclear physics which has given us nuclear power, and nuclear medicine which has opened up new avenues of medical treatment for such things as cancer.

ACCESSING ALL ENERGY

That threat volunteer work set kammen's profession on academic in addition to activist direction. For the ultimate 25 years his attention has been on in search of answers to growing nations ' strength desires. His passion today is "carbon get right of entry to" and he works in the main with communities in east africa, critical america–which include the united states that stimulated him originally, nicaragua– – and on local american lands in the us."physics has supplied me with the most extremely good training and that i use it regularly in solar cellular research nowadays, electricity grid community research, and dynamic system methods implemented to all types of stuff," he says.

Stepping from physics sideways into environmental sciences required a flexible and open-minded method, but kammen appreciates the challenge of learning new stuff. "i am inquisitive about persevering with to paintings in theoretical techniques and i additionally need to learn greater inside the humanities and social sciences where i am just a youngster," says kammen, who's editor-in-chief of the open-get entry to journal environmental research letters (produced by way of iop publishing, which additionally publishes physics international)[6].

Down to Earth

CONCLUSION:

In urban facilities, enclosed public areas, factories, hospitals, and so forth. Protection, safety and health care is one of the essential social rights for the populace of a country. The expansion of underground public areas inclusive of city regions, lengthy tunnels inside the city, underpassing footpaths, growing closed silos and different industrial facilities, in addition to the developing complexity of tactics influencing

environmental pollution in big cities, would growth they want for secure environmental conditioning structures in towns and inside the center of the human population.

REFERENCES:

1. Physics And Its Powerful Impact On The Environment Published on March 19, 2018 By naturetalkies
2. https://arxiv.org/ftp/physics/papers/0501/0501021.pdf
3. https://www.iop.org/publications/iop/archive/file_
4. https://www.iop.org/publications/iop/archive/file_
5. https://www.nap.edu/read/10118/chapter/10
6. **Kate Ravilious** is a contributing editor to environment and energy at *Physics World* and its sister website *environmentalresearchweb*