

SUSTAINABLE DEVELOPMENT LITERACY – NEED OF THE HOUR

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Introduction:

Climate models predict that Earth's global average temperature will rise in the future. For the next two decades warming of about 0.2° Celsius is projected. If we continue to emit as many, or more, greenhouse gases, this will cause more warming during the 21st Century than we saw in the 20th Century.

During the 21st Century, various computer models predict that Earth's average temperature will rise between 1.8° and 4.0° Celsius (3.2° and 7.2° F). The amount of predicted warming differs depending on the model emissions scenario (how much greenhouse gas emissions it assumes for the future).

Despite the difference in predictions, the fact remains that climate change is inevitable and fast approaching. This would mean changing precipitation, melting snow and ice, rising sea level, acidic ocean water, changing ocean currents, changing severe weather, more clouds and changes to life and carbon cycles.

To decrease and possibly avoid these repercussions, sustainable development needs to be made a norm, not an exception. To accomplish this in a reasonable time frame, one of the methods forward is to supplement higher education with education about sustainable development.

The Problem:

Scientists have pieced together a record of Earth's climate, dating back hundreds of thousands of years (and, in some cases, millions or hundreds of millions of years), by analyzing several indirect measures of climate such as ice cores, tree rings, glacier lengths, pollen remains, and ocean sediments, and by studying changes in Earth's orbit around the sun.

This record shows that the climate system varies naturally over a wide range of time scales. In general, climate changes before the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in greenhouse gas (GHG) concentrations.

Recent climate changes, however, cannot be explained by natural causes alone. Research indicates that natural causes do not explain most observed warming, especially warming since the mid-20th century. Rather, it is extremely likely that human activities have been the dominant cause of that warming.

In its Fifth Assessment Report, the Intergovernmental Panel on Climate Change, a group of 1,300 independent scientific experts from countries all over the world under the auspices of the United Nations, concluded there's a more than 95 percent probability that human activities over the past 50 years have warmed our planet.

The industrial activities that our modern civilization depends upon have raised atmospheric carbon dioxide levels from 280 parts per million to 412 parts per million in the last 150 years. The panel also concluded there's a better than 95 percent probability that human-produced greenhouse gases such as carbon dioxide, methane, and nitrous oxide have caused much of the observed increase in Earth's temperatures over the past 50 years.

The Solution:

According to Wikipedia, “Sustainable development is the organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the natural resources and ecosystem services based upon which the economy and society depend. The desired result is a state of society where living conditions and resources are used to continue to meet human needs without undermining the integrity and stability of the natural system. Sustainable development can be defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Sustainable development has recently come into limelight due to increasing awareness about climate change and our impact on our surroundings. It is only natural that this

should reflect on education. Many universities have now started offering certificate, graduate and postgraduate courses on sustainable development. These courses are slowly gaining traction as companies and institutions are looking to move towards sustainable development. This is a good step forward for a better future.

What we need, however, is a faster implementation of preventive measures and a complete paradigm shift to decrease and hopefully avoid the repercussion of climate change from hitting the future generations. This is not achievable at the current pace of the adoption of sustainable development by the industry. To increase the awareness of climate change and ways to combat it with a quick turnaround, one of the ways is to increase focus on sustainable development in fields of education not directly related to it. We need a supplementary subject on sustainable development in courses that don't cater specifically to this field.

In addition to changing the views of professionals on the importance of sustainability, this will help all professionals better understand their role and make helpful contributions to sustainability in their field of work.

Conclusion:

Climate change is not a myth or a distant danger. It is very real and very near. We need to be proactive in combating the continuous degradation of our environment. Literacy about what one can do in their profession to help combat them goes a long way towards solving this crisis. After all, teachers are responsible for inculcating values while inculcating knowledge. Literacy about sustainable development is the need of the hour.

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