Geopathic Stress: A Threat to the Built Environment

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Abstract- **Geopathic Stress is the energy from the earth surface which is the biggest threat to the built environment. Energy emitted by the earth surface which has ability to change the normal functioning of human beings is termed as Geopathic stress. World health Organisation in 1992 has identified that a building can make a person sick. The presence of ground water vein is closely associated with generation of such a stress and in turn it affects the built environment. Built Environment constitutes houses, roads, footpaths, shops etc. Geopathic Stress affects almost each and every part of the built environment. This energy penetrates metals, concrete and other substance which have high degree of impermeability. Although moving away from a stress zone is easier in residential built environment but it is difficult for the road environment where the accidents occurs because of such stresses. In the road environment, concrete may get deteriorated and cracks may get developed because of such stresses. The chances of lightening are more on such geopathically stressed zones. Also if geopathic stress is present on road environment, it may lead to increased reaction time of drivers in turn responsible for occurrence of accidents. If people sleep on such stress zones, they are susceptible to various diseases like cancer. Hence 'GEOPATHIC STRESS' is the threat to the built environment.**

Keywords- ***Geopathic stress, Built Environment, Accidents.***

I. INTRODUCTION

Geopathic stress is the energy emitted from earth surface which affect human beings and built environment. Earlier 'BhumiPariksha' was integral part of the construction activity. But now-a-days, it has been observed that it is generally neglected. Research shows that Geopathic stress affects almost each and every part of built environment. Natural environment with varying climate is not suitable for the lifestyle of human beings; other animals live by making adjustment with the environment. Man is always trying suitable transformation in the natural surroundings. Such transformed environment is termed as 'Built Environment'. Energies from the earth at certain locations that have ability to disturb normal functioning of human body systems are termed as 'Geopathic Stress'. The presence of geopathic stress is always neglected by the people since people are unaware of the occurrence in certain locations of built environment. Presence of ground water is closely associated with the geopathic stress. There are various methods by which we can detect the geopathic stress. This paper deals with explaining the effect of geopathic stress and methods for detecting the same. From the research it is now well proven that geopathic stress affect built environment such as, if people sleep on such stress zones, they are susceptible to various diseases like cancer. On the other hand, if geopathic stress is present on road environment, it may lead to increased reaction time of drivers in turn responsible for occurrence of accidents. Presence of tree in geopathic stress zone may even lead to tree cancer. The chances of lightening are more on such geopathically stressed zones. Concrete road may get deterioration or cracksmay develop on it in case of geopathic stress. So in this way, geopathic stress is one of the important threats to the built environment

II. OCCURRENCE OF GS AND SIGNIFICANCE OF ITS STUDY

The most usual cause of Geopathic stress is an underground water stream. When water flows through rocks, it gives rise to certain electromagnetic field. This potential is generated in the subsurface due to its mechanical friction as it flows through fissures, faults, joints and lineaments etc. (Geldart, 1976; Morrison, 2004). This electromagnetic field rises in a vertical plane from the underground stream to the earth's surface and above it, to a distance of 220 km (Rolf, 2005). They are known to be stronger at midday, mid-summer, full moon, and during periods of heightened solar flare (sunspot) activity. They have been dowsed as inactive in the Canadian tundra during the frozen winter. They are also known to be associated with higher levels of ionising radiation, and with lightning strikes and other atmospheric phenomena. Geopathic stress can also arise from a geological fault line i.e., a deep crack in the bedrock which allows radiation from deep within the earth to come up to the surface. Other factors leading to Geopathic stress zones

are ley lines, global geomagnetic grid crossings, underground caverns and natural mineral concentrations.

III. BRIEF OVERVIEW OF LITERATURE

Some of the ways to detect Geopathic stress zones are described below:

A.Dowsing: This is the most common technique to locate ground water veins or geopathic stress zones. Some of the devices used for dowsing and the methods are discussed here. Graves (1990) classified dowsing devices in three broad groups based on basic mechanical properties:

B. Devices using static neutral balance:

1) L-rods:

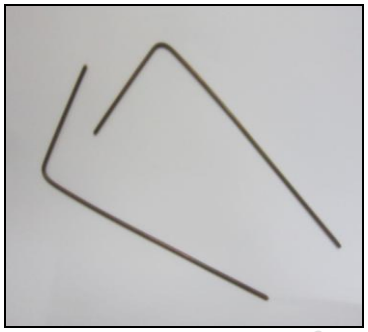

Fig. 1 Copper L rods

These rods are made any conductive metal. Its ratio of length to depth is 4:1. L rods are held parallel to each other, one in each hand and the dowser moves on the field. When he is on the edge of ground water vein, rods swing outwards or inwards. If the rods are held in search position and they point towards same direction, it is the direction of flow of vein. Similarly again holding rods in search position and rhythmically counting till both the rods swing give the approximate depth of the vein. It is seen that the L-rods appear to be more suited for locating ground water veins in built environment as the edges of vein can be located more precisely and thus the width of the vein can be noted, simple, fast and inexpensive.

2) Coconut: Using coconut for dowsing is a common practice in rural areas where it is used to locate the exact position where bore well should be dug. As coconut has water inside it, when a person holding the coconut in a specific position walks across water vein, there are changes taking place in the body that dislocates the coconut from the hand.

C. Devices using unstable tension:

1) Y shaped devices:

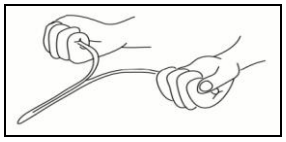

Fig. 2 Y shaped twig

Any Y shaped twig or plastic or metal rods can be used. Y shaped branch cut out from a hazel, apple, willow or bitch tree is commonly used. Arms are cut to a length of about 45 cm while its stem which serves as pointer, can be cut as small as 15 cm. dowsers move with the twig held in both the hands by pulling the two ends apart thus inducing some tension in the twig. When ground water vein is encountered, the twig turns either up or down.

D. Devices using dynamic neutral balance:

1) Pendulum: A pendulum is made simply using a17 cm long cotton thread or any fine string and plumb bob. Wedding rings, holed coins, crystals, etc. also serve the purpose of plumb bob. The pendulum is rotated at a specific speed and circumference. If ground water vein is present, the circumference of rotation increases. This method is more suitable for indoor dowsing.

There is no scientific evidence or explanation behind these dowsing results but they are found to be very effective and accurate.

E. Archaic method:

Places where geopathic stress is present could be often guessed by presence of bushes, colour of land, presence of water bodies and development of trees. Often some animals are also housed at these locations and their behaviour is observed. If a fresh pit is excavated and lighted lamp is placed in the pit, colour and direction of flame can also give any idea about the geopathic stress.

IV. OBSERVATIONS

Sorate (2013) conducted experiments on geotechnical properties of soil. He collected numerous samples form geopathic stress zones as well as normal zones. After conducting laboratory tests for physical properties of soil, he observed that physical properties on geopathic stress zones are different from those on normal zones. Following changes were observed: Moisture Content increases in Geopathic Stress Zone by 3%, Specific Gravity increases in Geopathic Stress Zone by 33%, Density has also increases in GeopathicStress Zone by 17%.Void Ratio in the Geopathic StressZone is greater than that of Non-Geopathic Stress Zone by 51%,Liquid Limit increases by 2% and adversely Plastic limit decreases by 12%. Conductivity decreases in Geopathic Stress Zone which indicating lower salt contents in soil.

Chafekar (2013) in his studies related geopathic stress to the pavement distresses. He selected 1 KM stretch of an MDR and conducted survey as per 50 m interval chainage. He observed that spots where geopathic stress was detected using L-rod dowsing and Magnetic field detector, the pavements had more distresses.

Dharmadhikari (2011) studied the effect of geopathic stress zone on human body voltage and skin resistance using V-20 bio voltmeter and GSR-2 biofeedback system. The readings of the all volunteers showed that the body voltage increases on geopathic stress zone. It was also observed that withthe increase in age, body voltage on geopathic stress zone was much higher.Observation of skin resistance measured by GSR-2 biofeedback system showed that the tone intensity changes on geopathic stresszone as compared to normal zone. It was furtherobserved that tone intensity increases with age of the volunteers.

Dharmadhikari (2010) measured human blood pressure, heart rate and pulse rate in GS and non-GS zones. He concluded that there was significant change in all the parameters for different age groups. There was decrease in systole blood pressure in the age group of 26 to 29 years and 40 to 48years people. The diastole blood pressure isfound to decrease in the age group of 26 to 28years where as for the age group 38 to 42 yearsrandom fluctuations are noticed. In case of pulse rate, upto the age group of 25 years, pulse rate is observed to be more innormal zone in comparison to geopathic stress zone. 25year onward the pulse rate is observed to be more ingeopathic stress zone. Between the age group 30 to 40years, similar variation with no specific pattern of increaseor decrease with respect to normal and geopathic stress zone are observed. Above 45 year age, pulse rate innormal zone is found to be less than GS zone. This indicated no specific pattern of effect of geopathic stresszone on pulse rate for different age group samples, but it certainly indicated some effect of GS zone. For the observations of heart rate, for most of the age group, in GS zoneheart rate is found to be less in comparison to normalzone except the age group 30-35years. It was observed that heart rate of the human vary about 10% to 15% due to geopathic stresszone in comparison to the normal zone.

V. CONCLUSIONS

- Geopathic stress affects the soil and changes the properties of soil.
- Road pavement get distressed and cracks may get developed in the Geopathic Stress zone.
- Geopathic stress zone is responsible for occurrence of road accident in the built environment since it increase the reaction time of drivers.
- Skin resistance, systolic and diastolic blood pressure is getting affected due to the presence of Geopathic Stress zone.
- Geopathic stress affects each and every part of the built environment hence is the **'BIGGEST THREAT'** to the built environment.

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