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CLIMATE CHANGE IMPACT: THE NEED OF ECO-EARTH STEWARDSHIP IN INDIA

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ABSTRACT

Balanced ecosystem is very important for sustainance of life on earth. In this short communication, author has highlighted on importance of eco system and climate change impact.

Human being is dependent upon interconnected ecosystem services. Water is one such service. It is a fundamental natural resource, which forms local setting and is essential for ecosystem functioning and human welfare. Climate change represents a significant threat to global ecosystem integrity. Concurrently, impacts of climate change on water resources are likely to affect the overall ecosystem. Many studies^{1,2} suggested that climate change increases water resource stresses, frequency and magnitude of extreme hydrological events, change in the runoff and stress on water quality in many regions. Changes in the hydrologic system may be due to increased incidences of global climatic, demographic and economic transformations, which may have repercussions on people and the environment in general. In India, stress on available land and water resources is already higher when compared to many other countries. Consequently, many researches are focused on integrated watershed management, but somewhat less has been studied about the impact of climate change on water resources and ecology in a regional scale and basin scale. The systematic integrated basin scale long-term eco-water resource management system is important for the nation. Research group needs to be focused and developed the "Climate Change, Water Resource and

EcoHydrological (CWEH) Coupled models" for integrated basin scale water resource management system and scenario building over next 25, 50, 75 and 100 years. CWEH needs to be integrated with Open Source Geospatial technology, which, helps to gain a scientific understanding of earth eco-systems at global to local scale and leads to development of scalable complex models.

Why this is important (highlights):

- Demand for Water resources is increasing due to population pressure and economic activity.
- Long-term scenario building is necessary for policy / decision makers to understand the human welfare, ecosystem and economic growth.
- Water contamination due to rapid urban growth is further enhancing water scarcity by reducing water usability in watershed.

REFERENCES

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