



Scope of Water Resources Geography

YASHIKA

MPHIL, (GEOGRAPHY) OPJSU, Churu, Rajasthan

Abstract

For the last 50 years, water resources geography has been studied as a distinct discipline of geography. At first, it was seen as a study of the hydrosphere, which covered not just sea water but also groundwater. As a crucial link in the hydrological cycle, the amount of water in the atmosphere was later included in Water Resources Geography after research in climatic and meteorological data. Along with water distribution and flow, human usage was also considered..

Key words: Water, Resources, Geography, specialization etc.

Introduction

Conceptually, water resources are all about examining the numerous ways in which water has been used by human cultures, including the sea, streams and ponds; groundwater; and ice, among others. It's easy to see how water management's history parallels humanity's. The unequal distribution of water on the Earth's surface necessitates an effective management strategy. Man's life and well-being have depended on his capacity to deal with the availability or lack of water resources from the dawn of time. Human creativity may be seen in the numerous methods used to get, transport, and distribute water across time. There is little doubt that water has played a vital role in sustenance, health, and the possibility for settlement.

The etymology of the term "resource" may be traced back to two independent words: "re" and "source," which refer to anything or anythings that can recur repeatedly. Until the early twentieth century, the word "Resource" had no specific meaning.

Humans have expanded their consumption of water in many ways as a consequence of technological advancement, resulting in a decline in both the quantity and quality of available water supplies. "In this context, the Association of American Geographers (AAG) has incorporated Water Resources Geography as an autonomous branch in the series, which emphasises water distribution, usage, and conservation".

Water resources have been studied from the beginning of time. "In the ancient Vedic period, Greek and Roman geographers documented how water was used and conserved in



the ancient world". Because of its availability and application, this research remained of regular relevance into the Middle Ages. Many discoveries and innovations were made throughout the Renaissance period, and resources were discovered in numerous places. This century's Industrial Revolution led to the overexploitation of water resources across the planet. Physical Geography at the time included the study of water resources.

Definition of Water Resources Geography:

"Water Resources Geography is the study of nature, spatial distribution, utilization and conservation of water on the earth. It consists of all the phenomena of hydrological cycle that passes through all the spheres: hydrosphere, atmosphere, lithosphere and biosphere on the earth."

Growth of resource geography

As human civilization and culture progressed, so did the development of geographic knowledge. However, at first, the geographic breadth was not clearly specified. Man's hunt for food, clothes, and shelter took him to woods, waterways, fertile land, and other natural areas. In this way, he became familiar with the resources and the places in which they were available. It is possible that this was the genesis of resource geography, although it emerged as a distinct field of study much later in history. Physical and human geography are the two basic divisions of geography. Agriculture, animal husbandry, hunting, and mining all fell under the heading of "geography of earth's exploitation," which he divided into two categories. E. Huntington, an American geographer, incorporated both physical and human conditions, such as water bodies, soil, minerals, animals, plants, and so on. Geography has grown through time to include a wide range of specialisations that focus on studying and analysing human populations. Human geography evolved into the field of economic geography in the second half of the nineteenth century. Resource use and human activity are examined in all of their regional ramifications.

Human geography is concerned with environmental issues. The link between a person and his surroundings was examined in terms of determinism and possibility. Nevertheless, the two conceptions underscored the necessity of resources and their usage. During the first decades of the twentieth century, economists like Carl Sauer, Hartshorne, Jones, and others presented their theories on economic geography, emphasising the value of natural resources and the industries that depend on them, such as agriculture, mining, and manufacturing. Because of an increasing need for specialisation, new geographic subfields



were created. German economic geography emerged, whereas British and American academics such as Chisholm, White Beck, Smith, etc. gave greater attention to commercial geography.

Following World War II, a focus on human capital development and resource efficiency became paramount. An emphasis was placed on resource evaluation and exploitation because of their significance to the country's economic progresses. Industrialization's rising mechanisation and technical progress after World War II may be traced to the advancement of transportation and communication technologies, manufacturing processes, resource use and conservation, research and development operations, and so on. The study of resource geography has benefited greatly as a result of these advancements. Management science has been integrated into this new subject. Research and training in resource geography is also a part of generic management techniques that has provided a new style of research and training in resources.

The social injustice component of resource appropriation by a few at the expense of many 'unpeople' has been included to the study of resource research.

The unfairness of geographical variance in resource ownership should be a topic of discussion in geography. On the one hand, social justice and inequity exacerbated the gap, while on the other, resource ownership grew more skewed.

Scope of Water Resources Geography:

1. Study of Geographical Distribution of Water Resources in the World:

“Studying all water resources in nature except seas and the ground surface, sub-surface and groundwater is the focus of this research. There will be an examination of how much and in what forms the water becomes accessible as microforms in glaciers, rivers, lakes or reservoirs and how humans make use of that water”.

2. Study of Functioning of Hydrological Cycle:

The hydrological cycle in nature is the only way to ensure a balanced distribution of water in the hydrosphere, atmosphere (water vapour), lithosphere, and biosphere. Water Resources Geography focuses mostly on this topic. Studying cycles and how humans affect them is also part of this.

3. Study of Qualitative Aspect of Water:

Water contamination and the mixing of unwanted materials into water as a result of dwindling supplies of fresh water are also included in this research.



4. Study of Water-Borne Problems:

Man's inability to evenly distribute water has resulted in several issues. Aside from arsenic and water logging, the most critical factors are salinity, alkalinity, fluoride, and fluoride. Water Resource Geography is also looking at these new issues.

5. Study of Water Management in Flood-Prone and Drought-Prone Areas:

There is also a focus on creating a long-term foundation for flood- and drought-prone regions afflicted by water scarcity.

6. Study of Uses of Water by Man:

In addition to being used for personal use, water from the natural world is mostly used for agricultural and industrial purposes. This issue has grown in relevance as the worldwide need for water grows. As a result, water recycling has become more crucial.

7. Geographical Study of Watershed:

“Since 1994, the watershed has been regarded as a geographic unit for water management because of the physical and biological regeneration activities that take place there. Various water conservation efforts are part of a community-participation programme”..

8. Study of Effects of Natural Calamities on Distribution and Avail-ability of Water:

In the 20th century, man's materialistic civilization brought about numerous changes in nature. The distribution and quantity of water are affected by this culture. Climate change, global warming, snowmelt, acid rain, and other factors all have a role..

9. Study of Water Crisis and Water Conservation:

Since the turn of the twentieth century, population growth has resulted in a water issue. Finding solutions to the water issue is as crucial as figuring out what's causing the problem in the first place. A method must be devised to preserve water in several ways at the same time. Sustainable water management is now a hot topic, thanks in part to a 1968 study titled "Limits to Growth" written by a research group led by Denis Meadoz. Published in 1972, it focused on increasing quality of life by preserving resources, such as drinking water, and creating a healthier environment.

Conclusion

During the twentieth century, governments across the globe began teaching Water Resources Geography as a distinct topic in order to protect their citizens from the consequent catastrophe and to provide a sustainable foundation for their use of water. Because of the diminishing supply of water, many environmentalists have renamed our



planet, once known as the "Blue Planet," the "Endangered Planet." They think that many species are on the edge of extinction because of the global water issue.

References

- [1] Bakker, Karen, and Gavin Bridge. "Material Worlds? Resource Geographies and the 'Matter of Nature.'" *Progress in Human Geography* 30.1 (2006): 5–27
- [2] Bridge, Gavin. "Resource Geographies I: Making Carbon Economies, Old and New." *Progress in Human Geography* 35.6 (2011): 820–834.
- [3] Bridge, Gavin. "Resource Geographies II: The Resource-State Nexus." *Progress in Human Geography* 38.1 (2014): 118–130.
- [4] Cutter, Susan L., and William H. Renwick. *Exploitation, Conservation, Preservation: A Geographic Perspective on Natural Resource Use*. 4th ed. Hoboken, NJ: Wiley, 2004.
- [5] Huber, Matt. "Resource Geographies I: Valuing Nature (or Not)." *Progress in Human Geography* (5 October 2016).
- [6] McNeill, J. R. *Something New under the Sun: An Environmental History of the Twentieth-Century World*. New York: W. W. Norton, 2000.
- [7] Peet, Richard, Paul Robbins, and Michael J. Watts, eds. *Global Political Ecology*. New York: Routledge, 2011.
- [8] Robbins, Paul, John Hintz, and Sarah A. Moore. *Environment and Society: A Critical Introduction*. *Critical Introductions to Geography*. Malden, MA: Wiley-Blackwell, 2010.