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Water conservation Concepts and Techniques in Thirukkural - Sangam Tamil Literature

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ABSTRACT

Sangam is the academy of noble poets and Tamil literature as its poetic tradition has a secular flavor. Since India is basically an agricultural country, almost all the poets wrote poetry about the nature especially the green fields and the water sources (rivers and seas) in the Sangam literature. During ancient times, the populations are limited and the usage of water is also limited and the peoples worshipped the water as God next to land. From this we can evidence the importance of water. But nowadays the hydrostatic locations are polluted and there is a significant need for daily life activities. The teachings of Thirukkural are most appropriate for and applicable to concepts and procedures of water conservation. It explains the importance of preserving and utilizing water resources efficiently (Neerindru amaiyaadhu ulakenin). The aim of the study is to determine how water conservation concepts and techniques are used in thirukkural. This study was accomplishing a quantitative research methodology. Documenting the early history and sharing the general ideas and specific instances of Sangam Tamil Literature. Thirukkural is particularly focused on projecting water conservation for young adults. The research hypothesis explored in this study, how Thirukkural emphasizes the water conservation concepts in militates of Sangam Tamil Literature. The findings reveal that Thiruvalluvar says in thirukkural the realistic thoughts to reach for every millennial generation.

Keywords: Tamil Literature, Thirukkural, Millennial generation, Hydrostatics, Semantics, Water conservation.

1. INTRODUCTION

Water plays prominent role in all forms of life. It exists in the liquid form of water under the usual ambient pressure and temperature. It also plays an important role in the world economy. The obtainable surface water is found mostly in lakes, reservoirs and rivers.

The human body is made up of 60% water, so that we can live three to five days without liquid. Water plays an important role in the body, which may include the free flow of existing waste from the body, the conveyance of nutrient absorption, and maintaining the body temperature and digestion.

Water molecules are always attracted to each other, forming an invisible force called hydrogen bonds. It is often used for human consumption and for activities such as swimming, fishing and boating. Usages can vary by location, but some common usage purposes are drinking, cooking, bathing, personal hygiene, cleaning, washing clothes, irrigation, agriculture, aquaculture, and recreational activities, etc.,



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Importance of water

Water is very important to our body's functioning, acts as a lubricant for joints, protecting tissues in bones and the spinal cord. Water helps the human body's blood circulation, and allows the wastes to be excreted in consistent manner. Many scientific researchers have also proven that water can protect the bone joints, spinal cord and tissues (Jessica, 2020).

Water keeps the body cool and regulates body temperature, which helps to maintain a healthy weight. The water acts as a lubricant in the inner body like the mouth and digestive system, in saliva, our nose, throat, eyes, stomach as part of mucus.

From the biological perspective, water helps to regulate body temperature and maintain homeostasis. It helps the transportation of oxygen and other nutrients to maintain the balance of electrolytes in the body. Water is also necessary for proper functioning of the organs and for the excretion of toxins and other metabolic waste products.

Need for water conservation

Water conservation is important because it helps the natural environment because the fresh water is a scarce resource. So, conservation helps to protect water quality by reducing the amount of pollutants entering into our waterways. Conserving water can help to reduce energy costs associated with water supply and treatment.

In recent years, the focus of water management has shifted towards enhancing water supplies and measuring the amount of water available. However, it is equally important to understand the pattern of water usage and consumption. As the water resources becoming increasingly scarce due to factors such as climate variability, changing land use patterns, and rising water demand, a comprehensive analysis of water usage patterns is necessary (Landon, Adel, Kenneth, Kerim, & Pierre, 2022).

Conservation is a significant to utilizing the natural resources of the biosphere in a responsible and sustainable manner, to achieve economic benefits in the present while preserving the ability to meet future needs. It is a way to manage these resources effectively to ensure the survival and prosperity of current generations (Aninda, Avyda, & Mumi, 2022).

Water in Thirukkural

In Sangam literature, the poetry is indicating the 'noble ones'. In literal terms, Sangam means 'association' and it is the formal organization that brings ideas or events together in memory.

Connection with the Sangam Tamil literature – water involves in everyday life activities. It is the responsibility of every human being on earth to satisfy their needs. An extensive discussion has been made in Sangam literature about water usage. In Thirukkural several lines are projected and explained about the current circumstances from early years ago. Thirukkural contains a number of lines that project and describe the preexisting conditions. They provide the code of conduct for all living human inhabitants, which makes the past meet the present and creates the future aspects of situations. One of the Indian works, Thirukkural is 2000 years old and popular for demonstrating knowledge using only seven words.

The Kural does not recommend democracy, but it accepts a royalty with ministers bound to a code of ethics and a system of justice. Kural is one of the most reviewed for all works in Tamil Literature. One of the most frequently discussed works of Tamil literature is Kural. Even the Kural text has been revered for centuries, garnering widespread respect for its



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author and its content. Each text is represented in the work by speech units, by semantic and functional commonality. The scientific style was developed with stereotypical formulas used in the texts of various sciences and marking them as standard content.

In many sectors, the process is changed that minimizing the use of water in various process and much more practical and cost-effective as compared to recycling, reuse and interception designs for the wastewater (Tanveer & Abdul, 2018).

Objectives

The main objective of this research are:

To identify the water conservation concepts and techniques used in major thirukkural; assess how thirukkural projects water conservation for young adults and analyze the meaning and relationship used in thirukkural.

While understanding this new area, a detailed literature review can help communication commodities. This study also aims to identify the existing knowledge of thirukkural – water conservation concepts and techniques.

2. REVIEW OF LITERATURE

Harvesting rainwater is a proficiency practice that should be adopted on a worldwide scale and is employed in a variety of methodological contexts today. In Sangam literature, many songsters say the water is used in domestic, industrial, and agriculture activities, etc. and rainwater provides a significant reduction in costs by using a nonconventional water source (Isabella de, Maria, & Paula, 2013).

Water is a precious gift to human beings and therefore, water conservation by public participation activities in the different phases of basin plans or projects can help ensure successful conservation efforts. Thirukkural plays a crucial role in the protection and promotion of biodiversity, “life cannot sustain without water, nor can virtue without rain, (Van Sirappu, Kural: 20). Many water resources are essential for all life forms due to its unique properties, such as its high specific heat, cohesion and solvent abilities, to increasingly become a scarce environmental resource worldwide (Sivapragasam & Kavitha, 2018).

Water conservation for young adults

Influenced by focusing on the literature reviewed on campuses substances like water and energy saving and waste disposal (Maerbal, Maria do, & Asher, 2013). Focusing on the academic material studied on college campuses has an impact on concepts like waste management and water and energy conservation. Environmental issues are perceived in a large variety of undergraduate and graduate courses and research programs, some of the initiatives linked academic environmental activities to the campus’s administration and life.

The minerals in the sea air reduce stress and can help improve physical health and well-being. When the sound of water gives peace of mind and some sort of clarity, it will refresh our minds (John, 2020). When the sound of water brings us clarity and serenity, it renews our spirits. Water is essential for social development because it improves access to education, health care and economic opportunities.

Meaning and relationship used in thirukkural

Thirukkural contains a wealth of useful information about society and the things to be followed by the society. It has an important meaning for many aspects of life, such as family, love, justice, morality, ethics and politics. Distinct proverbs and wise sayings can be used in



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everyday life. It is said to be a timeless classic that is still applicable today. The semantic analysis gives relationships and human cognitive ability, which can be understood and appreciated by people from all walks of life especially water conservation is one among them. (Anita & Subalalitha, 2019).

3. RESULTS AND DISCUSSION

The scholarly literature on water conservation is very broad and it links with concepts and techniques in Thirukkural. The researcher analyzed the research papers published in this area and understand the thirukkural - water conservation concept and techniques, meaning, relationship in content discourse analysis. The primary data analysis was used for this research paper. The occurrence of seasonal events in each situation determined by the requirements or availability as explained in Thirukkural. We focused our literature search on four main areas: concept and techniques in thirukkural, meaning and relationship in thirukkural, projecting water conservation for adults and communication commodities used in the water conservation concept.

In Thirukkural, there are three authorities and we chose arathupal chapter - vansirapu adhikaram (The Blessing of Rain). Totally five kural were chosen for this study.

Water conservation is mentioned in thirukkural, an ancient Sangam Tamil literature in one of the couplets. Without water, there is an end or the functions of nature cease and life on earth is impossible without it. A deep focus on Sangam Tamil literature through Thirukkural also describes risks faced in the environment at present, over and above projecting water conservation for young adults.

வான் நின்று உலகம் வழங்கி வருதலால்
தான் அமிழ்தம் என்றுணரற் பாற்று. (Kural – 11)

Transliteration:

The world its course maintains through life that rain unfailing gives;

Thus rain is known the true ambrosial food of all that lives

Water is needed for each and every human being. It fills the clouds with moisture and turns the plants green. The refreshment of soul and joy to every scene. The poem speaks the importance of rain and its role in sustaining life on earth. "Ambrosial" is a sweet and fragrant, its honeyed fruit with syrupy taste.

துப்பார்க்குத் துப்பாய துப்பாக்கித் துப்பார்க்குத்
துப்பாய தூஉம் மழை. (Kural – 12)

Transliteration:

The rain makes pleasant food for eaters rise;

As food itself, thirst-quenching draught supplies

Who are creating the food products, the droplets from sky that provides both sustenance and a pleasant surprise? Though the rain falls from the heaven that are nutritious food for those who love.

விண்ணின்று பொய்ப்பின் விரிநீர் வியனுகத்து
உள்நின்று உடற்றும் பசி. (Kural – 13)

Transliteration:

If clouds, that promise rain, deceive, and in the sky remain,

Famine, sore torment, stalks o'er earth's vast ocean-girdled plain



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The world is fully covered by water then the cloud withholding the rain will deceive our hopes some various aspects civilians affects with hungry.

ஏரின் உழாஅர் உழவர் புயல்என்னும்
வாரி வளங்குன்றிக் கால். (Kural – 14)

Transliteration:

If clouds and their wealth of water fail on earth to pour,
The ploughers plough with oxen's sturdy team no more

If the clouds fail to pour their wealth of water onto the earth. The harvest will be poor and crops and livestock is suffering – river will run dry. The water shortage will cause drought, shortage of food starvation leading to financial and ecological distress.

நீர்இன்று அமையாது உலகெனின் யார்யார்க்கும்
வான்இன்று அமையாது ஒழுக்கு. (Kural – 20)

Transliteration:

When water fails, functions of nature cease, you say;
Thus when rain fails, no men can walk in 'duty's ordered way'

The lack of water prevents nature from performing its functions. Therefore, if rain fails, it is impossible for humans to comply with their duties. It is true that no one can fulfill their duties of life without water. It is supposed to be essential for life, rainless seasons mean a life without water.

Without rain, the sources would eventually dry, and adults making it difficult or unrealizable to access the water for future aspects.

Water Conversation and thirukkural

To conserve water, save and use it wisely, since it is a source of life for all living things. One of the most important works of Tamil literature and its teachings are still relevant today. Water is an important theme in the Thirukkural, with several poems dedicated to its importance and conservation. Thirukkural is educating and creating awareness and motivating people to conserve water.

Sangam literature

In Sangam literature – Porunai or Thamirabarani River was mentioned several times. The river originates from the famed Kailasanathar temple in the Western Ghats and flows eastwards through Tirunelveli and Thoothukudi districts. The river finds mention in the Thirukkural, an ancient Tamil text authored by Thiruvalluvar and poet praises the river for its beauty and fertility.

“அரிமயிர்த் திரள் முன்கை
வால் இழை மடமங்கையர்
வரிமணற் புனை பாவைக்குக்
குலவுச்சினைப் பூக்கொய்து
தன்பொருறைப் புனல்பாயும் ...” (Puranaanooru – 11).

Transliteration:

“Young women with soft hair on their hands and ornaments play by building small sand houses in the sand bed and worship the Goddess they created in the sand with flowers. Then they swim and play in the cool water of the river Porunai” (Puranaanooru – 11).

Adolescent women with soft hair with their full of ornaments, sing historical songs and



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perform traditional dances to honor their goddess and the beauty of nature. Recognizable kind to offerings of food, flowers and incense to honour their goddess and pray for her protection and guidance.

“இவர் திரை தந்த ஈர்ங்கதிர் முத்தம்
கவர்நடைப் புரவிக்கால் வடுத்தபுக்கும்
நற்றேர் வழிதி கொற்கை முன்றுறை”(Aganaanooru-130)

Transliteration:

“The pearls brought by the waves of the sea made the horse limp as they injured its legs. Korkai was under the control of the Pandya king, who owned a quality chariot” (Aganaanooru-130).

The horse is injured by the pearls brought by the waves of the sea. Korkai was under the control of the Pandya king and belonged to have a quality chariot.

The Vaan Sirappu chapter of the Thirukkural indicates that the author, Thiruvalluvar, uses didactic, ethical, and moralistic language to convey important lessons to the reader. The language used is simple and concise, allowing the couplets to be easily remembered and applied in daily life. This is achieved through the use of similes, metaphors, and examples from daily life, which help to illustrate the concepts being discussed. It deals with the meaning and relationship between wealth and virtue. The author argues that wealth is not an end in itself, but rather a means to an end. According to Thiruvalluvar, wealth should be acquired through honest means, and should be used to support virtuous and charitable activities.

The Thirukkural is particularly relevant in the current context, where water scarcity and the mismanagement of water resources have become pressing global issues. The text’s emphasis on responsible water usage and the adoption of water- saving practices by adults in the community highlights the importance of individual actions in addressing these challenges. Furthermore, the call for a societal responsibility to ensure the equitable distribution of water resources highlights the need for collective efforts and the development of effective governance systems.

Current Scenario about water conservation in thirukkural

The Thirukkural, an ancient Tamil text, contains several chapters that highlight the importance of water conservation and the responsible use of natural resources. Thiruvalluvar said in these empowered sentences, the values, beliefs, customs and practices that have been passed down from the young generation to future generation within a culture or society. The meaning and relationship are accumulating knowledge and experience of the past and are often seen as a source of guidance for young adults and future generations. In Thirukkural, cognitive semantic structures are mental representations that organize concepts and their relationship in the mind. The structure helps individuals to understand the complex concept of water conservation.

4. CONCLUSION

Sangam literature includes Thirukkural highlights the importance of sustainable living and the consequences of neglecting the environment. Thiruvalluvar’s words in Thirukkural provides a path to happiness and realistic thinking for millennial. Sangam literature also mentions the importance of maintaining water sources and the consequences of neglecting water conservation. Water is the traditional wisdom now to save every citizen’s life. By reducing waste and supporting local business and farmers, we can reduce our carbon footprint.



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Participating in water conservation initiatives through cognitive semantic structures and supporting sustainable energy legislation can help build healthier communities. In Thirukkural, declarative sentences project words as if they were facts. Thirukkural educates on the significance of sustainable living and encourages sharing knowledge with others. Moreover, positive attitudes and beliefs are spreading through inspirational quotes.

References

- Aninda, M., Avyda, K. D., & Mumi, N. (2022). Water Conservation Efforts at Indrokilo Botanical Gardens, Boyolali. *Journal of Global Environmental Dynamics*.
- Anita, & Subalalitha. (2019). Building discourse parser for thirukkural. *Proc. of the 16th Intl. Conference on Natural Language Processing*, (pp. 18-25). Hyderabad.
- Carmella, C. M., A., K. R., & Ti-, I. H. (2000). Shared cognitive representations of perceptual and semantic structures of basic colours in Chinese and English. *Proceedings of the National Academy of Sciences of the United States of America*, 9.
- Isabella de, C. C., Maria, L. C., & Paula, P. A. (2013). Sustainable airport environments: A review of water conservation practices in airports. *Resources, Conservation and Recycling*, 32.
- Jessica, M. (2020, August 25). *Everyday health newsletter*. Retrieved from 7 Health benefits of water backed by scientific research: <https://www.everydayhealth.com/water-health/water-body-health.aspx>
- John, F. K. (2020, October 07). *Water - Psychology and Thirukkural*. *Psych Facts*.
- Lakoff, G. (1988). *Cognitive Semantics*. UC Berkeley.
- Landon, T. M., Adel, M. A., Kenneth, J. B., Kerim, D., & Pierre, G. (2022). Water use data in the United States: Challenges and Future Directions. *Journal of the American Water Resources Association*.
- Maerbal, M., Maria do, S. G., & Asher, K. (2013). Water conservation as a tool to support sustainable practices in Brazilian public university. *Journal of Cleaner Production*, 02.
- Markandan, R. (2021). Metafunctions in the Thirukkural: A systematic functional linguistics analysis. *International Journal of linguistics, literature and translation*.
- Mei, M., Aashay, V., & Ali, A. M. (2014). Chunks of thought: Finding salient semantic structure in texts. *International joint conference on neural networks*, 1.
- Sivapragasam, & Kavitha, B. (2018). Water problems and public participation in Chennai city: An empirical study. *Journal of the madras school of social work*.
- Tanveer, H., & Abdul, W. (2018). A critical review of the current water conservation practices in textile wet processing. *Journal of Cleaner Production*.



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