



Role of South Indian Pongal Festival in Developing Environmental Sustainability

M. Monika ^a, V. Divyavarsini ^a, C. Suganthan ^a

^a Department of English, Vellore Institute of Technology, Vellore-632014, Tamil Nadu, India

* Corresponding author Email: mail4monikaaaa@gmail.com

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Abstract: The Pongal festival in South India celebrated mostly in Tamil-speaking regions, is more than just a harvest celebration; it serves as a microcosm of traditional sustainable living practices. This essay examines how Pongal encourages eco-friendly habits and develops a peaceful relationship between humans and nature. Pongal is a traditional harvest festival observed throughout South India. Pongal festivities, which last four days and mark the start of the auspicious Tamil month Thai, celebrate agricultural wealth and prosperity. Pongal's ancient customs and ceremonies encourage environmental protection, wise resource use, and sustainable living. Recent efforts have been undertaken to green Pongal festivities with eco-innovations that combine tradition and sustainability. However, the vast magnitude of the festivities produces a lot of garbage and pollution. Pongal must be developed as a truly eco-friendly celebration through community-led efforts, government assistance, and public awareness campaigns. Pongal is traditionally prepared to utilise clay pots, sugarcane debris, and banana leaves, demonstrating an indigenous understanding of recycling and reuse ensuring using renewable resources and biodegradable products. Worshipping animals as part of Mattu Pongal emphasises the importance of ethical animal husbandry, whereas the ritual burning of useless goods on Bhogi Pongal represents simplicity via mindful decluttering also ensuring the production of palm tress and korai green leading to prevention of soil erosion. The feeding of kolams (Raw rice powder) and seasonal fruits to birds and insects exemplifies the symbiotic interaction that exists between nature and agriculture. Reviving such methods can raise environmental awareness by reminding people of Pongal's sustainable ethos. Pongal is the ideal cultural framework for rediscovering the underlying sustainability principles in tradition. Pongal festivities may be reoriented towards environmental consciousness by combining old eco-wisdom with modern inventions. Community-led initiatives supported by administration and infrastructure can improve resource utilisation and waste management. Promoting local goods, green décor, and eco-friendly habits through public awareness campaigns encourages people to celebrate sustainability while having fun. Pongal's rich cultural roots can help South India's agricultural and natural heritage thrive in an environmentally responsible future.

Keywords: Pongal, Renewable Resource, Sustainability, Pollution, Green Gas Emission, Sankranti, Jallikattu

Introduction

Pongal is a four-day harvest celebration held in southern India, namely in Tamil Nadu and Telangana Andhra Pradesh, Kerala and Karnataka. It signals the end of winter and the beginning of the harvest season. The celebration has great cultural and theological importance. The festival's rich cultural and religious roots also help with environmental sustainability and promote agriculture. Pongal has agrarian traditions that date back to prehistoric times when farming was the major source of nutrition for populations.

Looking into the festival's origins, it is related to the agricultural cycle, which entails giving thanks to natural elements like the sun, land, and animals for a fruitful harvest. Pongal has developed throughout time to include a variety of components, but its core as a celebration of nature and agriculture has not altered. Pongal is a multi-day event held every year in the second or third week of January to commemorate the start of the harvest season. Pongal is traditionally associated with paying gratitude to the Sun God and farm animals for their aid in securing a successful crop. Pongal is a celebration of considerable cultural and religious importance in an agrarian



community. However, increasing urbanisation and modernization are occurring. The festival's primary message and aim of contributing to nature and the environment is being lost as the focus shifts away from agriculture. Pongal celebrations must consequently be realigned back to their agrarian roots, which may be accomplished by encouraging eco-friendly festivals, emphasising the value of farming and the environment, and pushing for sustainable agricultural methods.

History and Significance of Pongal

Pongal comes from the Tamil word "pongu," which means "to boil" or "to overflow." The event takes place during the beginning of the sun's six-month trek northward, signalling the end of winter and the commencement of longer and warmer days. Tamils have been celebrating this astronomical occurrence as "Thai Pongal" for over 1000 years. It is seen as a rebirth of life. Pongal signifies the first harvest of new crops such as rice grains, sugarcane, and turmeric. It symbolises fresh beginnings and expresses appreciation to the Sun God Suriyan. Cattle were also given respect and worshipped as if they were Gods for their aid in ploughing fields and generating manure. Pongal has cultural and religious significance in addition to its astrological and agricultural significance, particularly when dwellings are cleaned and kolams (floor decorations) are constructed from rice and flower petals. Food offerings are also presented to deities as the Sun leaves one zodiac sign and enters another at the beginning of the "Uttarayan" (northward trip). The vibrancy, merriment, and passion exhibited during Pongal festivities is unparalleled for four days. The fervour stems from finally being able to reap the benefits of months of backbreaking hard in farms and fields. It consequently has significant socioeconomic significance for the predominantly rural populations who participate in the celebrations.

Traditional Pongal Celebrations

Pongal festivities typically take place over four days:

Bhogi Pongal- First day of Pongal

The festivities begin one day before, on the final day of the previous year, with "Bhogi Pongal." To symbolise regeneration, people rise early, burn fires, and destroy old and abandoned objects from their homes. The importance is twofold. To begin with, getting rid of clutter before the start of a new year is considered fortunate. Second, and more crucially from an environmental standpoint, the burning of unwanted goods symbolises the destruction of evil energies to purify houses and lives. However, burning items may cause pollution in the present generation but on older days January month is winter and people burn items during "*Brahma Muhurta*" which is an auspicious time from 4 am to 6 am. Gupta et al (2017) confirm that it reenergises the human body and wellness, and Chauhan et al (2019) confirm that brahma muhurta pooja aids in healthy lifestyle. Bhogi also increases the production of handmade eco-friendly materials like pottery, bamboo mats, *Paa* (Sleeping mats made of Korai grass) and palm tree products. These materials were neither created by cutting the plants or by deforestation (Newmaster et al, 2011). Korai grass is known for high resistance towards soil erosion and it prevents soil erosion. Palm trees were known for protecting soil erosion in water bodies (Paterson, 2014). When people give importance to this festival, the use and propagation of korai grass and palm trees will be widespread thus preventing environmental issues. On boghi, people perform special pooja next to wells.

In Tamil Nadu especially in Tiruvannamalai, people still consider having a water well is auspicious and says that gods live inside the well. It can be a myth but this thought and boghi has prevented the destruction of well as many people prefer bore wells. Wells can naturally draw the water inside with destroying the fresh water level in earth. Wells plays a major role in underground fresh water management. Closing water wells may cause severe damage in underground fresh water as bore wells are not effective way to conserve underground fresh water. Hence in Hindu tradition people said that closing water wells will cause "Pitra Dosh" (Bansal, 2012). People believe that pitru dosha affects throughout generation causing infertility hence, people in Tamil Nadu rarely closes the well and consider well as auspicious and symbol of prosperity thus protecting the underground fresh water.



Thai Pongal, also known as Sankranti-Second Day Pongal

The primary celebratory day is the second day, "Surya Pongal," which falls on January 14 every year. On this day, clay pots of milk and rice are cooked outside over wood-fired stoves until the pot overflows to represent plenty. This "Pongal dish" is then presented to the gods and goddesses before being consumed as prasadam. In the countryside, celebrations revolve around community gatherings at which bonfires are lighted and young girls perform "Kumme Attam" - dancing offerings to the sun accompanied by banging drums. Cattle are also given special care on this day. Cows and oxen are washed, their horns are painted, and flower garlands are tied around their necks. They are then fed venn pongal (sweet rice), jaggery, banana, and other fruits. Cattle races known as "manju virattu" are also staged in rural areas, with prizes awarded to the quickest oxen. The main crop cultivated during Pongal is turmeric, sugarcane and most produced product is earthenware's. Earthen wares are considered to be made from sustainable raw materials. Pottery production reduces the emission of greenhouse gases and carbon emission thus reduces the chances of global warming. High energy consumption always leads to pollution and release of toxins. Pottery is considered a low energy consumption product as it utilises easily renewable resources and it aids in environmental sustainability. During Pongal, people do pooja to the neem plants, peepal tree (*Ficus religiosa*), and Tulsi plants in their home. In many communities it is mandatory to have a neem tree and Tulsi plant at home, especially neem tree in entrance and Tulsi at backyard. The conifers in the neem tree is known to absorb the pollutants by reducing PM value. It absorbs CO₂, and other green house gases and releases oxygen (Prasad & Prasad, 2015). Neem tree is also known to retain the soil fertility and soil erosion (Uyovbisere & Elemo, 2002). Tulsi plant is known for its antimicrobial and anti-inflammatory properties, however tulsi plant can purify air by absorbing carbon monoxide, carbon dioxide and SO₂ (Cohen, 2014). It can give oxygen for 20 hours, hence it is an effective plant which increases the oxygen level of the atmosphere especially at night. One peepal tree is mandatory in each street at south India especially in Tiruvannamalai. Each street will definitely have a temple with peepal tree. In Hindu tradition, peepal tree is always considered equivalent to lord Ganesha and people worship peepal tree especially on Pongal as it is considered as symbol of well-being, prosperity and attaining moksha. Peepal tree is considered as the excellent in reducing air pollution as it gives oxygen throughout the day and night reducing the air pollution (Manasi & Raju, 2015). If these trees do not hold cultural instincts, they would be destroyed and their benefits will be unattainable. Thus, these festivals hold a strong cultural and religious belief that protects the environment through its effective practices. Turmeric is rich in micro nutrients and is considered an antibiotic and has anti-cancerous properties. Turmeric serves as an excellent natural fertilizer for plants (Adekiya et al, 2019).

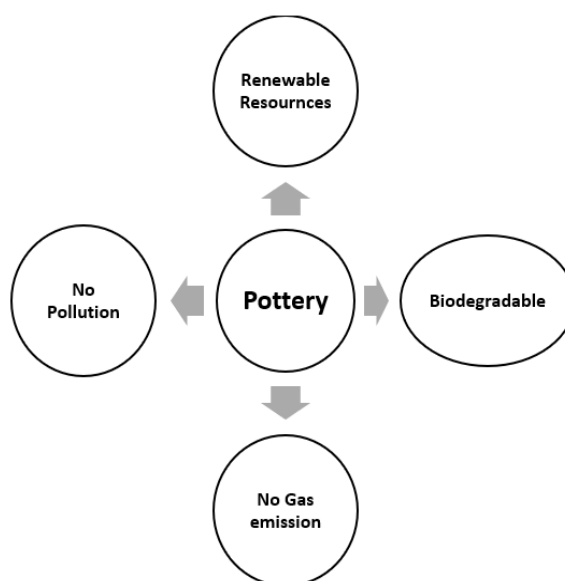


Figure 1. Significance of Pottery

The manufacture of 'pongal pots' - clay pots used for the ceremonial boiling over and gift of rice, jaggery, and milk to the Sun deity - is a key part of the festivities (Pallavi, 2024). Demand for these pots helps rural pottery cottage businesses while also preserving the sustainable technique of using clay soil. During Pongal, earthenware plays an important part in honouring farm output and natural elements. As a sign of thanks, pots are specially constructed to cook the delicious pongal meal. Their significance originates from traditional ideas about the natural purity and capacity of clay to hold heat for auspicious ceremonial reasons (Padmum, 2012). Pongal's preference for handcrafted pots over metal vessels demonstrates his roots in traditional knowledge, which sees harvest as a sacred human-nature exchange. During the Pongal season, households place orders for pots or build their own using local soil, giving a boost to pottery-making. Rural and tribal communities that celebrate Pongal extensively, such as Thiruvapur, Thanjavur, Madurai, and Sivagangai, maintain robust pottery clusters (Padmum, 2012). The surge in sales helps to support hereditary potter families and gives supplemental income to marginal populations, particularly women who work in the pottery industry. Festival demand pays for children's schooling, food throughout the winter, and medical expenditures for potters (Padmum, 2012).

Pottery preserves ancient skills of using clay from river beds or fields, processing processes such as kneading, shaping pots by hand or on wheel, open-air drying, and low-temperature fire in hay-lined kilns. Natural materials such as tamarind seeds, palm sugar, and vegetables give delicate earthy colours, while chemical paints are avoided (Preethi Alice Jacob, 2019). Making pots is therefore consistent with sustainability ideals, focusing on eco-friendly local resources and energy-efficient production with a minimal carbon impact. As clay is biodegradable, earthen pots are environmentally better food containers. When compared to plastic and metal pots during cooking or storage, research showed low leakage of hazardous substances (Ali Sultan et al, 2023). Pongal customs protect sustainable livelihood skills, improve energy efficiency, and provide environmentally friendly items to commemorate harvests by supporting ceramic firms. Efforts to replace clay pots with steel pots in the name of greater cleanliness endanger the survival of this green art and the cultural wisdom that surrounds it. The use of clay pots to balance modernism and ancient rites is significant for Tamil society's ecological conscience. Similarly to how pongal meal made as prasada in these cups expresses gratitude for nature's gifts of grain while asking for their continuing abundance.

Mattu Pongal-Third day of Pongal

"Mattu Pongal," the third day, is dedicated to cattle. Farmers use this day to thank their cattle for all their efforts in ploughing fields since farm animals are crucial to ensuring a successful crop. People go to cities to see bull taming events "Jallikattu" held in the countryside, in which young men attempt to control enraged bulls. Mattu Pongal, a cattle-loving group, stresses the importance of animals in agriculture. Farmers express their gratitude by feeding and beautifying their animals. This strategy not only encourages a humane approach to animal husbandry, but it also acknowledges the value of animals in sustainable agricultural operations (Times now Digital, 2021). Animals are essential for maintaining a good ecosystem. In Mattu pongal apart from celebrating bulls and cow, importance is given to all the animals which played a part in maintaining eco-sustainability. Animals like sheep, goat, hen, chickens were also celebrated on Mattu pongal. Two decades ago, every house in Tamil Nadu had chicken, goats and cows. Domestic animals are highly essential however when grown under natural grazing methods and natural breeding, the emission of green house gas could be reduced considerably (Gill, 2010).

Jallikattu, a historic bull-taming sport celebrated during the harvest festival Pongal in Tamil Nadu, has come under fire in recent years. Animal rights advocates have campaigned for the sport to be banned, claiming that it is inhumane to bulls. However, Jallikattu advocates claim that, in addition to conserving cultural legacy, the sport is critical in the protection of native cattle breeds that are better adapted to the local environment. Understanding this ecological dimension of Jallikattu and resolving ethical issues present complicated considerations of tradition, sustainability, and animal care. Tamil Nadu is home to some of India's greatest indigenous cattle breeds, including the Kangayam, Pulikulam, Umbalachery, Barugur, and Alambadi. These cattle evolved in the state's hot and humid environment, acquiring resistance to illnesses as well as resilience to droughts and fodder scarcity (Amrith Lal, 2021). Pastoral and agricultural communities fostered these breeds for decades, and they became fundamental to their cultural and subsistence activities. The breeds were recognised for traits like



as strength, endurance, and the capacity to work hard in severe agricultural circumstances in addition to being effective milk producers. Farm and dairy animals serve several functions in the rural economy.

However, due to the increasing dominance of high-yielding crossbred Jersey and Holstein Friesian cattle, the population of native breeds has been decreasing in recent decades. Crossbred cattle produce approximately 3-4 times more milk, but they also require high feed, medication, and careful care, making them prohibitively expensive for small farms (Amrith Lal, 2017). Furthermore, crossbred animals have poor heat tolerance and are vulnerable to tropical illnesses. Despite greater milk outputs, native breeds' net profitability vs crossbred cattle has been equal in evaluations that account for the entire lifespan production cycle (Amrith Lal, 2021). Because of their appropriateness for low-input rural agricultural systems, conservation of native breeds makes immediate ecological and economic sense. It maintains farmers' capacity to raise cattle autonomously utilising local resources without incurring excessive expenditures for lodging, feeding, illness treatment, and milk production. This is where Jallikattu connects native breeds conservation as a pragmatic requirement rather than a question of cultural feeling.

According to experts, the winning stud bulls' boldness and power increase their selling worth for breeding purposes (Amrith Lal, 2021). Farmers devote years of labour in breeding and training bulls for participation in Jallikattu, motivated by the potential of monetary and prestige benefits. The spectacle of Jallikattu stokes interest in indigenous breeds, motivating cattle owners to produce indigenous bulls and raising demand for the sperm of bulls that establish their worth in the athletic arena. As a result, eliminating the drive offered by the sport might spell the end of local cow populations, which are already a quarter of their former size.

Kannum Pongal- Forth day of Pongal

The fourth day, "Kannum Pongal," is the last day of festivity. People dress brightly and visit family and friends to share feasts. On this day, only special meals are cooked, with the principal component being 'Ven Pongal', a sweet concoction comprised of rice, moong dal, jaggery, milk, cardamom, and nuts. The colourful four-day event features a variety of activities such as community meetings, worshipping, dancing, preparing local cuisines, cattle racing, bull taming, and family reunions. It's a well-deserved holiday for the mostly agricultural people after months of backbreaking work in the fields.

Pongal: Where Festival Traditions Meet Eco-Wisdom and Eco-sensitivity

Pongal celebrations in Tamil Nadu show a profound oneness with nature. Far beyond a seasonal harvest festival, centuries-old traditions promote biodegradability, sustainability, and organic living. Following the green traditions of Pongal exposes an indigenous worldview that closely combines human well-being and nature. Eco-sensitive methods are at the heart of the four-day Pongal festivities. The first day of Bhogi Pongal is marked by the burning of old household objects, which symbolises regeneration while also eliminating clutter and reusing organic waste as manure (Bharathi, 2021). The Surya Pongal that follows focuses on cooking freshly harvested rice in new clay pots outside to express thanks for nature's supplies (Preethi Alice Jacob, 2019). Aside from biodegradability, the mineral purity and long-lasting heat retention qualities of clay are culturally significant. Pottery is also a sustainable village craft due to the simple availability of soil.

The sweet pongal meal is then served as ritual nourishment to the Sun deity and farm animals, which nurtured the food alongside natural elements. Cattle are honoured on the last Kaanum Pongal day with elaborate washing, garlanding, and anointing, emphasising their economic significance while displaying compassion. The notion of ecological balance runs throughout the rituals, allowing shared access to nature's bounty between human families and animal deities via attentive utilisation and waste management. Pongal philosophy, in order to maintain harmonious cohabitation, severely prohibits overexploitation or illicit appropriation (Bharathi, 2021).

Pongal Aligns Food Production with Environmental Limits

Pongal corresponds with the Tamil solar calendar month Thai, when the sun enters Uttarayan - the six-month period beneficial to crops and abundance (Hindu, 2023). Festival scheduling aligns agricultural cycles with seasonal changes, and cultural behaviours connected with climate-appropriate food production evolve. Generations



of wisdom on area growth conditions are embodied by boiling pongal in pots outside, conducting sun worship, and adorning animals. The rural Cauvery delta - Tamil Nadu's rice bowl - is the centre of Pongal celebrations, demonstrating the landscape centrality of customs (Preethi Alice Jacob 2019). Pongal restrains overexploitation by bringing social attention to ethical methods of food agriculture that are in line with nature (Aluri, 2024). Its emphasis on utilising locally manufactured pots also contributes to the village's self-sufficiency and sustainability.

Pongal Rituals Strengthen Organic Living Traditions

Aside from agriculture, daily family rituals throughout Pongal season also demonstrate congruence with sustainable living. Cleaning homes with cow dung, decorative kolams (floor art) made of rice paste, oil baths with herbal extracts, fresh coconuts for prayers, and chemical-free banana leaf meals bring celebrations into close symmetry with organic materials from soil, plants, and livestock that support daily life (Aluri, 2024). These traditions reduce use of externals such as plastic and chemicals by relying on internal or communal resources. Women build the infrastructure for Pongal rituals by planning food items such as murukku, thattai, and kosu malli (types of snacks) as well as handmade cosmetics for months. Their knowledge connects family health and environmental wellbeing (Preethi Alice Jacob, 2019). Years-old techniques are therefore incorporated into a circular sustainability to meet household demands from inside while conserving soil production. Pongal's agrarian underpinnings make its ceremonial cosmic phenomenon intimately responsive to ecological shifts, fostering resilience and passing on wisdom for keeping balance between human demands and natural boundaries. Pongal naturally ties human and ecological fates, driving all efforts towards collective continuation, by intimately integrating ethics, philosophy, and spirituality with soil, cattle, sunshine, water, flora, and family. Its green cultural history contains priceless lessons for dealing with climate change challenges and creating locally thriving, internationally sustainable societies.

Farming Practices Guided by Seasonal Wisdom

Pongal corresponds with the Tamil month of 'Thai,' which marks the sun's northerly change, when conditions are favourable for harvesting rabi crops and reaping a bountiful harvest before summer (Hindu, 2023). Its timing thereby encodes seasonal knowledge to optimise food production in tropical settings in accordance with monsoon rains and sun availability. Customary traditions thus support ecological farming; for example, burning dry stalks produces organic manure, boiling pongal in clay pots retains micronutrients, and the provided prasada and Mattu Pongal feed returns nutrients to the land via bovine dung. Pongal raises awareness for community adherence to ecologically sensible agriculture and food consumption practices established over millennia of practical learning via communal feasting (Aluri, 2024). As a result, traditions govern farming in accordance with regional climate while also advancing the circular economy principles.

Environmental Aspects in the food and Decor

Pongal ingredients such as rice, jaggery, nuts, fruits, and cane represent native plant varieties that suit soil conditions, require little water and chemical inputs, and provide nutritional food while easily decomposing after use in rituals or decorative elements such as sugarcane arcs, banana stalk posts, and flower garlands (Preethi Alice Jacob, 2019). Kolams are made using rice flour, which dissolves quickly and leaves little trace. Nagarajan (2018) affirms that kolam tradition have fed various insects like ants and serves as a symbol of wealth. Women in South India create intricate and colorful rangolis, known as Kolam, using rice flour or chalk. These decorative patterns not only add visual charm to the festivities but also have a sustainable dimension. The use of rice flour, a byproduct of the festival's main dish, promotes a zero-waste approach, turning leftovers into beautiful expressions of art (Ruthie, 2023). Local potters create clay pots from dirt that hold heat and minerals while degrading back into mud. Pongal traditions avoid the environmentally detrimental imprint of plastics and chemicals by making such choices. Furthermore, the event supports community-managed resources such as village ponds, grazing pastures, and woodlands used for cooking fuel, which reduces rural families' dependency on external ecological services (Aluri, 2024). Pongal ideology therefore promotes comprehensive, regenerative farming approaches.



Pongal & Environmental Concerns

While the Pongal harvest festival is historically observed to express thanks to the natural forces responsible for bountiful harvests, there is a growing gap between traditional agricultural habits and modern techniques. Over the last few decades, civilizations have shifted away from nature-based agriculture due to rising industrialization and urbanisation. Modern agriculture is becoming increasingly corporatized, moving away from bio-diverse local farms and depending largely on profit-driven monocultures. Pesticide use has increased more than 50 times from 5 million tonnes in 2005 to more than 56 million tonnes in 2021, threatening vital pollinators such as bees. Soil quality is declining as a result of excessive chemical inputs, which have reduced soil organic carbon levels. Excessive groundwater extraction for irrigation has made India the world's greatest consumer of groundwater. Climate change has exacerbated the agricultural issue by causing extreme weather events such as floods and droughts. Farmers are increasingly mired in debt and hardship, fueling record farmer suicide rates, while ancient wisdom of closely harmonising methods with nature vanishes. While Pongal is still celebrated as a cultural expression of gratitude to nature, the stark reality of diminishing environmental health threatens agriculture's basic ecological foundation. Pongal celebrations must so be reconnected to their rural roots. The festival provides a forum for highlighting farming issues and advocating for natural and sustainable agriculture solutions to increase product in an environmentally responsible manner. The basic principle of Pongal celebrations has always been to express thankfulness to nature - the sun, rain, earth, and cattle. As a result, it provides an ideal venue for reigniting discussions on reorienting agricultural practices towards environmental sustainability. Pongal festivities might be modified to increase awareness in the following ways:

- Through prayers, concessions, and gratitude sharing practices, emphasise the ties between agriculture and environment.
- Organise educational workshops for students to emphasise the necessity of environmentally sustainable agriculture operations.
- Support rural community bio-diversity festivals that emphasise the interdependence of plants, insects, birds, and animals.
- Encourage vegetarianism to reduce meat consumption, which drives the expansion of chemical-laden monocrop animal feed.
- Through lectures, conversations, debates, and traditional arts, emphasise the importance of farms and farmers.
- Encourage governments to create policies and incentives to encourage small-scale natural agricultural approaches. Create post-festival action plans to spread the message of sustainable farming.

Pongal festivals provide an opportunity to rekindle a debate about farming that is more in tune with nature. Pongal celebrations might play a critical role in mobilising public support for ecological and economically sustainable agriculture by raising awareness about the environmental dangers of short-sighted conventional agriculture. It is critical that agricultural policy experts use the public attention around Pongal to shift food production systems towards more sustainable approaches.

Financial incentives, agricultural infrastructure projects, market connections, and training programmes must be developed with the interests of small-holder farmers and environmental protection in mind. The Pongal harvest festival might thus serve as an ideal platform for highlighting farmer difficulties and disseminating solutions that increase agricultural productivity through environmentally friendly initiatives. After all, long-term socioeconomic advancement is dependent on the fundamental environmental underpinnings that allow civilizations to survive.

Discussion

Pongal celebrations honour and support agriculture, which sustains Tamil society while promoting ecological balance. Centuries-old traditions hold the philosophy of preserving nature's generosity via thoughtful agriculture that protects soil fertility and biodiversity. Pongal is centred on thankfulness and prayers for good rice and sugarcane harvests, milk production, and rural wealth, with agriculture serving as the pivot (SP, B., 2021). The



four-day celebrations begin with Bhogi, the tradition of burning old household objects to symbolise regeneration while also creating farmyard manure. To preparation for festivals, cattle and agricultural implements are cleaned and decorated (Aluri, 2024). Surya Pongal uses freshly harvested rice to symbolise thanks to the Sun. A portion of the Pongal rice meal is later served to cattle as prasada, recognising their involvement. Mattu Pongal witnesses village cows being honoured by flowers, turmeric rice balls feeding, and multi-colored kolam floor art around them, demonstrating affection (Preethi Alice Jacob, 2019). Throughout the events, the fostering link between crops, cows, humans, and divinities emerges as the foundation of material and spiritual nourishment. Beyond symbolism, Pongal traditions advocate for an environmentally responsible agricultural method that relies on monsoons and domestic organic inputs to nurture staple food crops of rice and cane with local cow raising (Aluri, 2024). Thus, celebrations honour the practice of circular sustainability among small-scale mixed agricultural and rural households operating under environmental restrictions.

Conclusion

Pongal celebrations have sustained eco-friendly farming traditions attuned to Tamil Nadu's terrain for centuries within overarching beliefs seeing earth, bovines and people as mutually nourishing members of shared habitat rather than isolated production factors. Reflecting on this unity through Pongal practices continues to foster ecological sensitivity and climatically aligned sustainable food production. The Pongal festival in South India is a cultural tapestry weaved with strands of environmental sustainability. The event symbolises a peaceful interaction between humans and nature, from the symbolic overflow of the Pongal pot to the use of traditional ceramics. Pongal not only provides a bountiful crop but also contributes to the larger global push towards sustainable living by learning and conserving these traditions. As we face modern-day issues, the principles buried in Pongal provide a timeless guidance to a more environmentally sensitive future. The Pongal harvesting festival is significant culturally, religiously, and economically in South India, since it marks the first harvests of the year. However, increasing environmental stresses from modern agriculture endangers the fundamental ecological foundation that supports farming. Pongal events must refocus attention on the crucial linkages between human existence and nature. It is critical to raise awareness about the need of using sustainable agriculture practices that increase productivity while mending the land. Public awareness must also go beyond holiday trash cleanups to include year-round personal consumption and waste generating accountability. Similarly, government funding must prioritise small-scale farmers that use ecological measures to ensure ecologically harmonious food production. Climate change exacerbates the need for civilizations to reimagine their interactions with food and agriculture. Pongal provides a venue for further contemplation on communal traditions that nurture rather than drain natural resources, such as collective prayers, artisanal meals, and camaraderie. After all, human growth is fundamentally dependent on ecological stability and resilience. The key to such stability is to embrace diversity, whether in crops, ideas, or people - concepts that connect with the welcoming and uniting attitude that underpins Pongal celebrations.

References

- Adekiya, A.O., Alori, E.T., Aboyeji, C.M., Dunsin, O., Adegbite, K.A., Aremu, C.O., Bamiro, O., Ejue, W.S., Okunlola, F.O., Adesola, O.O. (2019). MgO fertilizer sole and combined with organic and inorganic fertilizers: effect on soil chemical properties, turmeric performance, and quality in a tropical Alfisol. *The Scientific World Journal*, 8140276. <https://doi.org/10.1155/2019/8140276>
- Ali Sultan, S.A., Ahmed Khan, F., Wahab, A., Fatima, B., Khalid, H., Bahader, A., Safi, S.Z., Selvaraj, C., Ali, A., Alomar, S.Y., Imran, M. (2023). Assessing Leaching of Potentially Hazardous Elements from Cookware during Cooking: A Serious Public Health Concern. *Toxics*, 11(7), 640. <https://doi.org/10.3390/toxics11070640>
- Aluri, D.V. (2024). Pongal: Harvesting Joy and Tradition, *Medium*, <https://drvijayaaluri.medium.com/pong-al-harvesting-joy-and-tradition-7fc04de77819>
- Amrith Lal, (2021) Explained: As Jallikattu begins, recalling the cultural argument for an ancient tradition | Explained News—The Indian Express, <https://indianexpress.com/article/explained/jallikattu-tamil-nadu-pong-al-celebrations-explained-7147339/>
- Bansal, V.S.K. (2012). 45 Powers of Alchemy. Noida, India: *Aunkar Foundation*.



- Bharathi, SP. (2021). Traditional potters in TN counting on Pongal to revive their business. *The News Minute*. <https://www.thenewsminute.com/tamil-nadu/traditional-potters-tn-counting-pongal-revive-their-business-141308>
- Chauhan, V.V.J., Manche, V.Y., & Patrikar, V.V.G. (2019). Bramhamuhurta for Healthy Lifestyle-A Review Study. *World Journal of Pharmaceutical Research*, 8(6), 260-265.
- Cohen, M.M. (2014). Tulsi-Ocimum sanctum: A herb for all reasons. *Journal of Ayurveda and integrative medicine*, 5(4), 251.
- Gill, M., Smith, P., & Wilkinson, J.M. (2010). Mitigating climate change: the role of domestic livestock. *Animal*, 4(3), 323-333. <https://doi.org/10.1017/S1751731109004662>
- Gupta, D. R., Shukla, D.O., & Shrivastav, D.V. (2017). A Decent Science Behind the Bramha Muhurta. *International Journal of Ayurvedic and Herbal Medicine*, 7(6), 3005-3009. <https://doi.org/10.18535/ijahm/v7i6.14>
- Hindu (2023), Importance of Tamil New Year. *The Hindu*. <https://www.thehindu.com/society/faith/importance-of-tamil-new-year/article66732661.ece/amp/>
- Lal, Amrith. (2017). Listen Closely to the Voices at Marina for the Story beyond Jallikattu, 'Tamil Pride.' *The Indian Express*, <https://indianexpress.com/article/explained/listen-closely-to-the-voices-at-marina-for-the-story-beyond-jallikattu-tamil-pride-4486943/>
- Manasi, S., Raju, K.V. (2015). People and the Peepal: Cultural Attitudes to Sacred Trees and Their Conservation in Urban Areas. India: *Partridge Publishing*.
- Nagarajan, V. (2018). Feeding a thousand souls: Women, ritual, and ecology in India-An exploration of the kolam. *Oxford University Press*. <https://doi.org/10.1093/oso/9780195170825.003.0011>
- Newmaster, A.F., Berg, K.J., Ragupathy, S., Palanisamy, M., Sambandan, K., Newmaster, S.G. (2011). Local knowledge and conservation of seagrasses in the Tamil Nadu State of India. *Journal of Ethnobiology and Ethnomedicine*, 7, 1-17. <https://doi.org/10.1186/1746-4269-7-37>
- Padmum (2012), Pongal and the Earthen Pot | This and That, There and Here. <https://padmum.wordpress.com/2012/01/15/pongalandtheearthenpot/>
- Pallavi (2024). Pongal 2024: Four days of Pongal; all the rituals of the harvest festival you want to know in detail. *Hindustan Times*. <https://www.hindustantimes.com/lifestyle/festivals/pongalandfourdaysofpongalandalltheritualsoftheharvestfestivalyouwanttoknowindetail101705217504126.html>
- Paterson, D.G. (2014). The use of palm leaf mats in soil erosion control, Doctoral dissertation, South Africa: *University of Pretoria*.
- Prasad, R., & Prasad, S. (2018). Neem and the Environment. *International Journal of Plant and Environment*, 4(01), 01-09. <https://doi.org/10.18811/ijpen.v4i01.11608>
- Preethi Alice Jacob (2019), At the Potter's Wheel, Delhi, India: *Indian Society for Promoting Christian Knowledge*.
- Ruthie, V. (2023). Kolam: Artistic Expressions of Gratitude. *Seattle Artist League*. <https://www.seattleartistleague.com/2023/11/23/kolam-gridded-art-expressions-of-gratitude/>
- Times Now Digital (2021), Mattu Pongal 2021: Know the significance of this auspicious day. <https://www.timesnownews.com/spiritual/religion/article/mattu-pongaland2021-know-the-significance-of-this-auspicious-day/707433>
- Uyovbisere, E.O., Elemo, K.A. (2002). Effect of tree foliage of locust bean (*Parkia biglobosa*) and neem (*Azadirachta indica*) on soil fertility and productivity of maize in a savanna alfisol. *Nutrient cycling in Agroecosystems*, 62(2), 115-122. <https://doi.org/10.1023/A:1015590823039>

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