

## **"The Role and Dynamics of the Delta in Socio-economic and Cultural Development - Experiences from the Mega-Deltas -Kerala Experiences'.**

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### **Speech Note**

Ladies and gentlemen,

Good morning,

I position before you today as Dr. Allan Thomas, Professor and Head of the Department of Agricultural Extension Education at the esteemed Kerala Agricultural University (KAU), representing a state which is not classified as an absolute delta region by traditional standards, but that mimics deltaic features in multiple ways due to its diverse landscape of water bodies and numerous islands. We gather here to explore the role and dynamics of delta systems in the socio-economic and cultural development of Kerala, drawing inspiration from the rich tapestry of life that defines this remarkable region.

Kerala, often referred to as "God's Own Country," boasts a unique blend of ecosystems. This lush, humid tropical state is blessed with two monsoons, receiving an average annual rainfall of 3000 mm, supplemented by summer showers during March and April. This abundance of rainfall is a lifeline for recharging the water bodies in the region, sustaining the intricate deltaic systems, nurturing rich biodiversity, and supporting agriculture and livelihoods.

While Kerala may not conform to traditional delta criteria, its elaborate network of 44 rivers, backwaters, and estuaries has nurtured communities for generations. These regions are biodiversity hotspots, with the Western Ghats,

running parallel to the coast, hosting numerous endemic species of plants, animals, and birds.

Kerala's inland waterways are a defining feature of its landscape. The backwaters, lagoons, and estuaries form a labyrinth that plays a vital role in the lives of its people. The Kadalundi Bird Sanctuary, situated at the confluence of the Kadalundi River and the Arabian Sea, exemplifies the ecological importance of these deltaic areas. It serves as a haven for migratory birds, symbolizing the harmony between Kerala's deltaic regions and global biodiversity. One unique aspect of Kerala's riverine and deltaic regions is the coexistence of diverse ecosystems within a relatively small geographical area.

Now, let's explore into the richness of art and culture woven into Kerala's wetland ecosystem. The state is renowned for its traditional art forms, which often draw inspiration from the natural world that surrounds its people.

Kathakali, one of Kerala's iconic classical art forms, is a vivid example. This ancient dance-drama combines storytelling with elaborate costumes, makeup, and facial expressions. The themes often revolve around epic tales and mythological stories that reflect the profound connection between Kerala's culture and its natural environment.

The traditional martial art of Kalaripayattu, which has its roots in Kerala, is another cultural gem. It mimics the grace and strength of animals and is inspired by the movements of creatures found in the deltaic regions. These martial art forms have not only preserved traditional knowledge but have also served as a source of physical fitness and cultural pride for generations.

Kerala's traditional music, including classical and folk forms, often features lyrics that celebrate the beauty of the land, its rivers, and its people's relationship with nature. The rhythms of percussion instruments like the chenda and mridangam mimic the natural sounds of the wetlands and rivers in flow through interweaving rocks.

Nehru Trophy Snake Boat Race on the Punnamada Lake in Alappuzha showcase the profound connection between Kerala's water bodies and its people. These races, often accompanied by traditional songs and performances, bring communities together in celebration. In addition to these traditional art forms, Kerala's wetland ecosystem has inspired contemporary artists and writers who continue to draw from its beauty and complexity. The lush landscapes, serene backwaters, and unique wildlife have found their way into the works of painters, poets, and authors, ensuring that Kerala's deltaic regions remain a muse for creativity.

Kerala's cuisine, deeply rooted in its wetland ecosystem, is another testament to its rich culture. The use of fresh seafood from the backwaters and rivers, along with rice and an array of spices, creates a culinary experience that reflects the deltaic bounty of the region. Dishes like Karimeen Pollichathu, a preparation of pearl spot fish, and Kuttanadan Duck Curry, a delicacy from the Kuttanad region, clam meat delicacies showcase the flavors of Kerala's water-rich landscapes. Let us recognize that these expressions of creativity are not separate from nature but an integral part of it. They reflect the deep-rooted relationship between the people of Kerala and their environment, reminding us of the importance of preserving this unique deltaic heritage.

The Kerala Agricultural University (KAU) is actively involved in research and development across Kerala's deltaic landscapes through various research stations. These stations, such as Regional Agricultural Research Station Kumarakom, Agricultural Research Station, Chalakkudy near the Vazhachal region, Vytilla Rice Research Station, and others, are strategically positioned to address the socio-economic and cultural needs of farming communities along riverbanks and in delta regions.

Allow me to shed light on the invaluable contributions of the Kerala Agricultural University's (KAU) Regional Agricultural Research Station and the Krishi Vigyan Kendra (KVK) Kumarakom in our efforts to conserve and augment the Kuttanad Heritage Agriculture (KHA) system. These institutions have been at the forefront of research and development, as well as extension interventions in this region. They play a pivotal role in studying and implementing sustainable practices that harmonize with KHA's unique environment through introducing schemes of development like 'one rice-One fish' farming system. Their collaborative efforts with local communities are instrumental in finding solutions to challenges such as declining waterways, saline water intrusion, and pollution. KAU's dedicated efforts in these areas underscore its commitment to conserving and enhancing the unique deltaic components of Kerala's agricultural heritage while addressing the challenges posed by saline water intrusion, ecological diversity, and socio-economic livelihoods. Understanding the significance of this area, Hon. Vice Chancellor of KAU, Dr. B. Ashok (IAS) has announced the commencement of a new Agricultural College at RARS Kumarakom in the year 2023-2024.

Furthermore, I would like to emphasize the importance of recognizing educational institutions like the College of Agriculture, Vellayani, my alma mater. This college, which began as an agricultural research institute in 1956 and attained college status under Kerala Agricultural University in 1972, is not just an educational institution. It is a heritage structure, a landloch building palace, surrounded by **Kerala's second-largest freshwater ecosystem**. This ecosystem plays a vital role in Kerala's development, supporting inland fish culture, home-stay tourism, lotus conservation, and even the drinking water requirements of the capital city, Thiruvananthapuram. Moreover, within a mere 20-kilometer radius lies the Poovar mangrove ecosystem, a natural wonder featuring a lake that connects to the sea, creating a haven for migratory birds and a sanctuary for agro-eco tourism, attracting a significant number of foreign tourists.

In the spirit of our discussion today, let us draw inspiration from initiatives like lake Fest-Kayaloram 2019, organized by the College of Agriculture, Vellayani which is surrounded by Vellayani lake ecosystem. This festival that included ‘conservation workshops, cleaning the lake activities, exhibition portraying good agricultural practices in lake bank ecosystem, competition related to nature and waterbody environment, awareness campaign on fresh water lake conservation, etc., exemplifies the profound connection between education, leadership, and community enrichment, mirroring the essence of delta life in Kerala. As we celebrate Kayaloram's vision of empowering students to develop leadership qualities and cultivate social responsibility.

Let us remember that Kerala's delta regions thrive when we embrace the interplay of culture, agriculture, and nature. It is our shared responsibility to ensure the sustainable development of these regions, preserving the rich tapestry of culture and nature that defines them. In conclusion, as we navigate through the intricate dynamics of Kerala's deltaic regions, let us remember that these areas are not just geographical features but living ecosystems that intertwine with our culture and way of life. Together, let us celebrate their uniqueness and work towards their continued prosperity.

Thank you for your kind attention.