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NALWADI KRISHNA RAJA WODEYAR THE CONTRIBUTION OF IRRIGATION

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Abstract:

Nalwadi Krishnaraja Wodeyar IV, the Maharaja of Mysore from 1902 to 1940, was a visionary ruler whose contributions to irrigation laid the foundation for agricultural and economic prosperity in the Mysore state, now part of Karnataka. Recognizing the vital role of water in sustaining rural livelihoods, he prioritized irrigation as a central pillar of development. His most notable achievement in this domain was the construction of the Krishna Raja Sagara (KRS) Dam across the Cauvery River, initiated with the guidance of his Dewan, Sir M. Visvesvaraya. At its time, it was one of the largest dams in Asia and significantly transformed the arid plains of Mandya and Mysore into fertile, agriculturally productive regions.

Krishnaraja Wodeyar IV's irrigation initiatives were not limited to major dams but also included the revival of traditional tank systems, construction of canals, and equitable distribution of water through community engagement. His policies emphasized scientific planning, water conservation, and integration of agriculture with industry, particularly through the promotion of agro-based enterprises like the sugar industry in Mandya. The irrigation infrastructure developed under his rule facilitated multi-cropping, improved food security, and uplifted rural communities by increasing employment and income levels.

Beyond physical infrastructure, he introduced institutional reforms in water governance, promoted agricultural education, and encouraged research in soil and water management. His holistic approach made Mysore a model state in irrigation and rural development. The legacy of Krishnaraja Wodeyar IV continues to influence water policy and agricultural practices in modern Karnataka. His efforts demonstrate how visionary leadership, combined with scientific and inclusive governance, can transform natural resources into engines of sustainable development.

Keywords: *Nalwadi Krishna Raja Wodeyar, Contribution, Irrigation etc.*

INTRODUCTION:

Nalwadi Krishnaraja Wodeyar IV, born on June 4, 1884, in Mysore, was the 24th Maharaja of the Kingdom of Mysore. He ascended the throne in 1902 at the age of 18 and ruled until his death in 1940. Known as a progressive and benevolent ruler, he was widely hailed as a "Rajarshi" (saintly king) by Mahatma Gandhi for his dedication to public welfare and democratic values. His reign marked a golden age for Mysore, often considered one of the most well-administered states in pre-independent India. Educated under distinguished tutors, Krishnaraja Wodeyar IV was deeply influenced by Western education and Indian traditions. He worked closely with visionary Dewans like Sir M. Visvesvaraya and Sir Mirza Ismail, implementing reforms in education, public health, industry, and infrastructure. Under his leadership, Mysore became a pioneer in hydroelectric power, with Bangalore becoming one of the first cities in Asia to be electrified. He championed social reform, promoted women's education, and encouraged public institutions like the University of Mysore (established in 1916). He invested heavily in irrigation projects, including the Krishna Raja Sagara Dam, transforming agriculture in the region. Krishnaraja Wodeyar IV ruled with a rare blend of wisdom, humility, and innovation. He died on August 3, 1940, leaving behind a legacy of progressive governance and development. His contributions laid the foundation for modern Karnataka and earned him a revered place in Indian history as one of its most enlightened monarchs.

OBJECTIVE OF THE STUDY:

This study explores the irrigation initiatives of Krishnaraja Wodeyar IV and evaluates their long-term impacts on the region's socio-economic fabric.

RESEARCH METHODOLOGY:

This study is based on secondary sources of data such as articles, books, journals, research papers, websites and other sources.

NALWADI KRISHNA RAJA WODEYAR THE CONTRIBUTION OF IRRIGATION

Nalwadi Krishnaraja Wodeyar IV, the Maharaja of Mysore from 1902 to 1940, is widely regarded as one of the most enlightened and progressive rulers of pre-independent India. Revered as a "Rajarshi" or philosopher-king by Mahatma Gandhi, his reign marked a golden era in the history of the princely state of Mysore, especially in terms of economic development, public health, education, industry, and agriculture. Among these, one of his most transformative contributions was in the field of irrigation, which played a crucial role in shaping the agricultural prosperity and rural welfare of Mysore. His irrigation policies were not just administrative efforts but deeply reflected his vision for a self-reliant and flourishing agrarian society. Born in 1884 and educated under the guidance of Sir Stuart Fraser and other eminent scholars, Krishnaraja Wodeyar IV ascended the throne at the age of 18. He inherited a state with a well-laid foundation in administration and infrastructure, thanks to the efforts of his predecessors and visionary Dewans like Sir K. Seshadri Iyer. However, it was under his reign, with the assistance of equally remarkable Dewans such as Sir M. Visvesvaraya and Sir Mirza Ismail, that Mysore State underwent a profound transformation in terms of

development, particularly in water management and irrigation infrastructure. He believed that the prosperity of a state was inherently tied to the well-being of its farmers. Recognizing the dependency of agriculture on timely and adequate water supply, Krishnaraja Wodeyar prioritized irrigation as a key area of state intervention.

One of the most significant irrigation achievements during his reign was the conception and eventual execution of the Krishna Raja Sagara (KRS) Dam across the river Cauvery near Mysore. Though the idea for the dam was initially proposed in the late 19th century, it was during the rule of Krishnaraja Wodeyar IV that the project gained momentum, particularly under the stewardship of Sir M. Visvesvaraya, who served as the Dewan of Mysore from 1912 to 1918. The Maharaja gave his full support to the project, recognizing its vast potential to transform agriculture in the drought-prone regions of the state. Despite facing opposition from the British government and technical challenges, he remained steadfast in his commitment to the dam's construction.

The Krishna Raja Sagara Dam, completed in 1931, was one of the first major irrigation and hydroelectric projects in India. At the time of its completion, it was the largest reservoir in the country. The dam not only provided irrigation water to thousands of acres of agricultural land in the Mandya and Mysore regions but also laid the foundation for hydroelectric power generation, which facilitated the growth of industries and urban electrification. The Maharaja's vision went beyond mere construction; he saw irrigation as part of an integrated rural development model. The dam enabled multi-cropping, increased the productivity of farmland, and greatly reduced the risks associated with rain-fed agriculture. It also gave rise to the "Green Gold" region of Mandya, which became known for its sugarcane cultivation and sugar industries.

In addition to the KRS Dam, Krishnaraja Wodeyar's administration undertook several other irrigation initiatives across the state. Numerous tanks, canals, and anicuts were constructed or renovated to ensure equitable water distribution across different regions. He revived traditional irrigation practices while also embracing modern engineering solutions. The emphasis was on increasing the cultivable area and reducing the dependence on monsoons. His government meticulously maintained tank systems, which were particularly suitable for the undulating terrain of southern Karnataka. The irrigation department was strengthened and modernized, and local engineers were trained and encouraged to study the most recent advancements in water resource management.

Krishnaraja Wodeyar's approach to irrigation was not limited to engineering works. He integrated it with agricultural policy, land reforms, and community welfare. Recognizing that merely supplying water would not ensure agricultural prosperity, his administration also introduced agricultural extension programs, demonstration farms, and training centers to educate farmers on the best use of water resources. The establishment of agricultural colleges and research centers was another hallmark of his irrigation-driven rural development model. The government provided subsidies for seeds, fertilizers, and tools, ensuring that irrigation infrastructure directly translated into increased agricultural productivity and rural incomes.

Water management during his reign was characterized by foresight and inclusivity. Krishnaraja Wodeyar laid special emphasis on equitable water distribution and minimizing water disputes. He promoted cooperative water usage systems and local water-user associations to ensure that water resources were shared fairly among communities. The state played a proactive role in dispute resolution, ensuring that small farmers were not marginalized in the access to irrigation water. His administration also conducted detailed surveys and created comprehensive maps of water resources, helping in long-term planning and disaster management.

The irrigation policies of Krishnaraja Wodeyar IV also had a far-reaching economic impact. Increased agricultural output boosted food security, rural employment, and revenue for the state. Surpluses in production enabled the growth of agro-based industries such as sugar mills, textile units, and rice mills. The rise of Mandya as an industrial-agricultural hub is a direct result of the irrigation facilities provided by the KRS Dam. These developments triggered a cycle of rural prosperity, improved public health, and educational attainment. More importantly, they helped arrest the rural-urban migration trend, creating self-sufficient villages and towns.

One of the unique aspects of Krishnaraja Wodeyar's irrigation model was its environmental sensitivity. Long before the advent of modern environmentalism, his policies reflected an understanding of ecological balance. Forest conservation was encouraged in the catchment areas of dams and tanks, and soil conservation practices were integrated with land use planning. His administration discouraged deforestation and incentivized afforestation, recognizing the link between forest health and sustained water availability. The construction of irrigation infrastructure was done with due consideration to minimizing displacement and environmental degradation.

It is also worth noting the Maharaja's diplomatic and legal engagement in water-sharing issues. As rivers like Cauvery and Tungabhadra flowed across multiple princely states and British-administered provinces, inter-state water disputes were a recurring challenge. Krishnaraja Wodeyar's administration consistently advocated for equitable and scientific water sharing. The treaties and negotiations conducted during his reign laid the foundation for the future legal frameworks on inter-state river water disputes in independent India. His emphasis on negotiation, data-based planning, and legal clarity ensured that Mysore's interests were protected without antagonizing neighboring states.

The irrigation legacy of Krishnaraja Wodeyar IV is not merely a chapter in the history of Mysore but a model that inspired water resource management across India. His reign is often studied in Indian administrative history as an example of enlightened monarchy that combined traditional values with modern scientific governance. By prioritizing irrigation, he addressed one of the most basic yet critical needs of his people — access to water. In doing so, he empowered farmers, boosted food production, promoted industry, and stabilized rural economies. His legacy also includes institutional development in the field of irrigation. The establishment of the Mysore Engineering College (now UVCE) and the support for technical education ensured a steady supply of skilled engineers and administrators for irrigation and public works. His administration was data-driven and encouraged the compilation of agricultural and hydrological statistics,

which were rare for princely states at the time. These records were later used by planners and policymakers in post-independent India for large-scale irrigation projects and rural development schemes.

The people of Karnataka continue to revere Nalwadi Krishnaraja Wodeyar IV as a visionary who brought water to their fields and prosperity to their homes. The success of the Krishna Raja Sagara Dam and its associated canal networks still stands as a monument to his vision. Annual rainfall fluctuations, droughts, and water scarcity continue to pose challenges to agriculture in India. Yet, the foresight and foundational work laid by Krishnaraja Wodeyar IV provide critical lessons in sustainable water management. His emphasis on combining engineering with community participation, technology with tradition, and development with equity remains deeply relevant today.

Promotion of Water Governance and Institutional Reforms

A defining feature of Krishnaraja Wodeyar IV's irrigation policy was the establishment and institutionalization of effective water governance mechanisms. Rather than viewing irrigation solely as an engineering task, he understood it as a complex governance issue that required the cooperation of farmers, engineers, administrators, and policymakers. His administration promoted a decentralized model of water governance that gave voice to local communities, especially cultivators who directly depended on these resources. Water Users Associations (WUAs), though not formalized under that name at the time, were practically implemented in many regions of Mysore under his rule. These groups managed local tanks, small canals, and shared irrigation systems in villages. They ensured fair water allocation, resolved local disputes, and coordinated water usage during drought periods. By empowering rural communities to manage their resources, Krishnaraja Wodeyar helped build a sense of ownership and accountability among farmers, which greatly enhanced the efficiency and sustainability of irrigation.

His administration also created a structured irrigation department with qualified engineers, trained staff, and clear administrative hierarchies. The Department of Public Works was bifurcated into specialized units to handle irrigation, sanitation, and urban infrastructure separately—an innovative move for its time. Regular water audits, field inspections, and repair schedules were institutionalized, ensuring that irrigation systems remained functional and well-maintained over decades. The Maharaja's governance model emphasized transparency, professional training, and accountability, which contributed significantly to Mysore's reputation as one of the best-administered states in India.

Socio-Economic Transformation through Irrigation Access

While most princely states concentrated their irrigation efforts in high-revenue or elite-controlled lands, Krishnaraja Wodeyar IV made a conscious effort to prioritize marginalized regions and communities in his irrigation plans. This deliberate inclusivity set his model apart from other rulers of his time. His administration conducted detailed land surveys to identify arid zones, backward taluks, and drought-prone areas that had historically been ignored by development policies. Targeted interventions such as building community tanks, restoring ancient water structures, and constructing field-level canals helped bring thousands of previously uncultivable acres under plough. This inclusive approach to irrigation infrastructure had a massive ripple

effect on the socio-economic landscape of Mysore. Scheduled Castes and marginalized communities, who had limited access to resources, suddenly found themselves equipped with the means to cultivate food crops, improve household incomes, and invest in education. The development of irrigation led to a sharp increase in food grain production, diversification into commercial crops, and higher rural employment. Entire villages were lifted out of subsistence farming and food insecurity, thanks to timely access to water.

Krishnaraja Wodeyar's policies also linked irrigation access with rural credit schemes. Farmers receiving water were offered easy loans to invest in improved seeds, cattle, and implements. Agricultural cooperatives emerged in irrigated areas, providing a platform for collective bargaining, shared machinery, and joint marketing of produce. The rise of sugarcane farming in Mandya and the establishment of the Mandya Sugar Factory were direct results of this integrated irrigation-based development strategy. Thus, irrigation became not just a means of survival, but a driver of upward social mobility.

Integration of Science, Research, and Technology in Irrigation Planning

A strong proponent of scientific progress, Nalwadi Krishnaraja Wodeyar IV emphasized the integration of modern science and research into irrigation policy. Unlike many of his contemporaries who relied primarily on traditional knowledge, he supported a dual approach—where indigenous wisdom about water management was enhanced and scaled using modern engineering principles and scientific inquiry. This outlook was shaped by his collaboration with eminent personalities such as Sir M. Visvesvaraya, whose engineering acumen was world-renowned.

One of the key outcomes of this science-driven approach was the establishment of institutions dedicated to water research and agricultural science. The Mysore Agricultural College in Hebbal (now part of the University of Agricultural Sciences, Bangalore) and other research stations began systematic studies on water usage patterns, soil moisture retention, crop irrigation scheduling, and drought resilience. Findings from these institutions were directly used to inform government policy and farmer education programs. They helped identify which crops could thrive best under varying water conditions and what irrigation methods were most efficient—canal irrigation, tank irrigation, or lift irrigation. Another major scientific breakthrough encouraged by the Maharaja was the early experimentation with underground drainage systems and contour bunding in irrigated lands. These techniques not only improved water conservation but also reduced soil erosion and prevented waterlogging, thereby maintaining soil fertility. His administration was also among the first to promote hydroelectricity as an auxiliary benefit of irrigation reservoirs. Power stations built at Shivanasamudra and later near KRS Dam lit up industries and urban centers while continuing to support water needs of farmers. This merging of multiple utilities—irrigation, power, and flood control—into a single reservoir project was truly ahead of its time and served as a blueprint for later multipurpose river valley projects across India.

Long-Term Influence on National Water Policy and Planning Models

Although Krishnaraja Wodeyar IV ruled a princely state under British suzerainty, his ideas and practices had a profound influence on the evolution of India's national water policy post-independence. Engineers and administrators trained during his reign went on to serve in prominent positions in newly independent India. Many irrigation schemes launched by the Indian government after 1947 drew inspiration from the Mysore model, particularly the emphasis on multi-functional dam projects, farmer participation, and integrated rural development. The concept of combining irrigation with power generation and agriculture with industry, later realized in massive schemes like the Bhakra-Nangal Project and the Damodar Valley Corporation, had precedents in the KRS Dam and its linked development strategies. The administrative frameworks for managing irrigation departments in Indian states also mirrored the institutional structures first introduced in Mysore. Furthermore, the legal basis for water-sharing negotiations between states such as Karnataka and Tamil Nadu traces back to the early treaties and technical reports produced during Krishnaraja Wodeyar's tenure, which were used as precedents in tribunal cases.

In the broader context, the Maharaja's holistic irrigation strategy served as a counter-narrative to colonial development models that were often exploitative and extractive. His model was participatory, inclusive, and rooted in the belief that development must serve the people directly. This legacy remains vital in contemporary discussions around sustainable water use, participatory governance, and rural resilience in the face of climate change. As India confronts new challenges related to water scarcity, groundwater depletion, and farmer distress, the principles embedded in Krishnaraja Wodeyar IV's irrigation philosophy offer enduring wisdom.

CONCLUSION:

Nalwadi Krishnaraja Wodeyar IV's contributions to irrigation stand as a testament to his foresight, compassion, and commitment to the welfare of his people. By prioritizing irrigation as a cornerstone of development, he transformed the agrarian landscape of the Mysore state, turning drought-prone regions into fertile agricultural zones. His most iconic project, the Krishna Raja Sagara Dam, not only provided water for irrigation but also supported hydroelectric power, enabling industrial and urban growth. Through a blend of traditional wisdom and modern engineering, he ensured water reached even the remotest villages, empowering farmers and boosting food production. His approach was holistic—combining infrastructure development with scientific research, education, and community involvement. He emphasized fair water distribution, introduced governance reforms, and invested in agricultural institutions, making Mysore a model for other states. His vision extended beyond immediate gains, focusing on long-term sustainability, equity, and self-reliance. Even decades after his reign, Krishnaraja Wodeyar IV's irrigation policies continue to influence Karnataka's development and serve as an inspiration for water management in India. His legacy is not just one of construction, but of transformation—where water became a tool for empowerment, prosperity, and social progress. He remains one of India's most admired and forward-thinking rulers.

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