A legacy of spice and science: The evolution of ICAR-IISR

Spices have been pivotal to India's political and economic narrative, sought after for their flavour, preservative qualities, and medicinal properties. In 1951, India initiated formal research on spices by establishing the Spices Enquiry Committee, leading to the Indian Council of Agricultural Research (ICAR) assuming structured oversight. This paper outlines the transformation of ICAR-IISR, tracing its development through successive institutional phases from regional stations to the National Research Centre for Spices, and ultimately its elevation to the Indian Institute of Spices Research. The institute's impact is measured through its multidisciplinary research and technology dissemination, serving farmers, industry stakeholders, and academic entities. It conducts targeted programs across key spices such as black pepper, cardamom, ginger, turmeric, nutmeg, clove, garcinia, cinnamon, and vanilla. In 2016, ICAR-IISR redefined its mandate to concentrate on genetic resource management, production and disease-control strategies, validation of technologies, capacity building, and positioning India as a leader in spice exports.

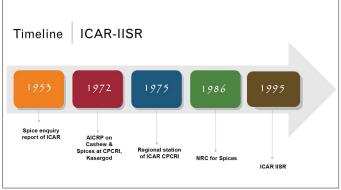
PICES have been instrumental in influencing India's political and economic evolution. Its rich aroma, medicinal benefits and use in food preservation made it highly coveted across Europe. The immense value and growing global demand for Indian spices played a crucial role in reshaping world history. Driven by the desire to access these exotic goods directly, European explorers began seeking alternate sea routes to India. This quest culminated in 1498 when Portuguese navigator Vasco da Gama arrived at Kozhikode (Calicut) on the Malabar Coast, opening a direct maritime link. His arrival marked a significant historical milestone, paving the way for European colonial interests in India. The Portuguese were soon followed by the Dutch, French, and eventually the British, each competing for dominance over the prosperous spice trade. This competition laid the foundation for

centuries of colonial rule that would significantly shape India's sociopolitical landscape.

Organized research on spice crops in India began with the formation of the Spices Enquiry Committee by the Government of India in 1951. Based on the committee's recommendations, the responsibility for spices research was assigned to the Indian Council of Agricultural Research (ICAR). This marked a pivotal transition towards a more structured and coordinated approach, laying the groundwork for sustained scientific progress in the spice sector. A major boost came in 1971 with the launch of the All India Coordinated Spices and Cashew Nut Improvement Project, headquartered at the Central Plantation Crops Research Institute (ICAR-CPCRI) in Kasaragod. The initiative focused on improving the productivity of major spices and cashew crops. During the fifth five year plan, the scope of the project expanded to include seed spices. Subsequently, the project was bifurcated, and the All India Coordinated Research Project (ICAR-AICRP) on Spices was shifted to Calicut following the establishment of the National Research Centre for Spices (NRCS) in 1986.



Recognizing the need for sustained and focused basic and applied research on major spice crops, the Indian Council of Agricultural Research (ICAR) established a regional station of the Central Plantation Crops Research Institute (CPCRI) at Kozhikode. Dedicated exclusively to spice



research, the centre commenced its operations on 10 November 1975. Later, with the support of Dr M S Swaminathan, who was then the Director General of ICAR, 14 ha of land within the Calicut Corporation limits were allotted for the development of a permanent research facility at Chelavoor, Kozhikode.

Within a decade of its inception, the regional station at Kozhikode was elevated to the status of the National Research Centre for Spices (NRC for Spices) during the eighth five year plan in April 1986. As part of this reorganization, the Cardamom Research Centre at Appangala, which had initially been transferred from the Indian Institute of Horticultural Research (IIHR), Bangalore, to the Central Plantation Crops Research Institute (CPCRI), Kasaragod, in 1974 was integrated with the NRC for Spices. Following recommendations from the Quinquennial Review Team (QRT) and the Parliamentary Committee, the centre was further upgraded to a fullfledged institute, becoming the ICAR–Indian Institute of Spices Research in July 1995.

This unique institute strives to serve the stakeholders in spices sector including primary producer, farmer collective, industry constituent and public institution by conducting goaldirected and peer reviewed research and spearheading technology dissemination. The institute has



successfully integrated cutting edge research, innovative thinking and global networking into its programmes, activities and services. The mandate crops of the institute encompass a botanically diverse set of crops including black pepper, cardamom, ginger, turmeric, nutmeg, clove, garcinia, cinnamon and vanilla.

Reflecting the changing needs and emerging strategic concerns, the mandate of the institute was revised in 2016. The key mandates of the institute are:

- Basic, applied and strategic research on genetic resource management, crop improvement, crop production and protection technologies for enhanced production of safe spices.
- Transfer of technology, capacity building and impact assessment of technologies.
- Coordinate research and validation of technologies under AICRP on Spices.
- These mandates align with the vision of enhancing productivity of spices for meeting growing domestic demand and to be the global leader in spices export.

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Indian Horticulture