



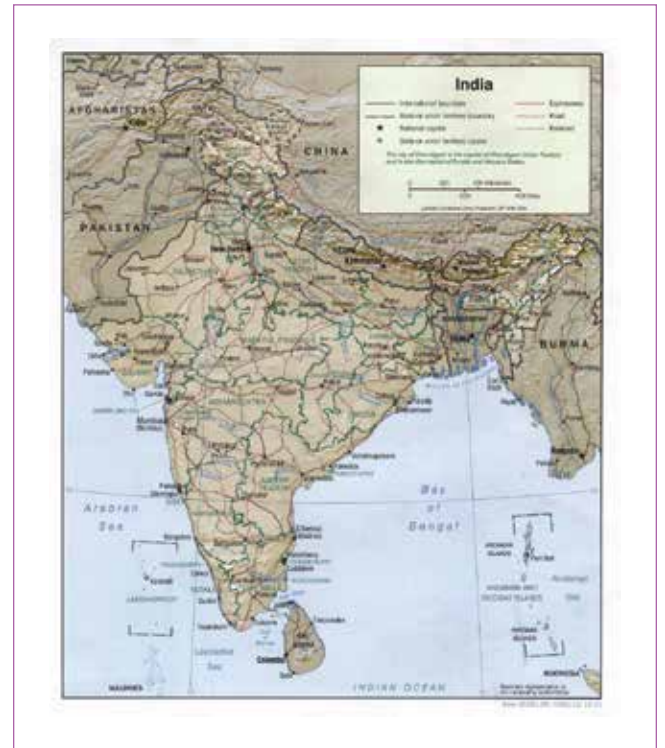
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Republic of

INDIA

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The art, culture and kingdoms of India could not have spread through centuries and countries without knowledge of its geography. In the Vedic literature of over 5000 years ago, the knowledge of land was presented in a graphical form which described the extent and shape of territories. The *Brahmand Purana* of 500 B.C. to 700 A.D. gives evidence of the art of modern map-making. The art of surveying and techniques of mensuration of areas are described in *Sulva Sutra* (science of mensuration) and in the *Arth Shastra of Chanakya* written in the 3<sup>rd</sup> century B.C. The golden age of Indian Renaissance in the 5<sup>th</sup> century saw the towering genius Arya Bhat who wrote *Surya Siddhant* and calculated the earth's circumference to be 25,080 miles — less than 200 miles off modern measurements of the equator. Chinese and Arab travelers and many adventurers also contributed to Indian geography. Sher Shah Suri and Todar Mai's revenue maps, based on regular land survey systems, were well known in the medieval period and continued to be in practice during the mid-eighteenth century. Even today, the six huge instruments in masonry built by Raja Sawai Jai Singh in the heart of New Delhi in 1724 attract tourists from all over the world. These were designed and built by him to study the movements of the sun, moon and planets. Such instruments were also built in Jaipur to measure, among other things, time and eclipses. Another observatory was built by him in Ujjain in 1723 to forecast eclipses and movements of the sun as well as indicate the correct time. According to records, Rajaraja I of Tanjore (985–1011 A.D.) carried out careful surveys of the lands and cultivation. This shows that there must have been many other surveys of which no clear records have been preserved. However, information is available of the surveys instituted by Akbar dur-



-ing the 16<sup>th</sup> century; measurements being made by a hempen rope which was replaced by a 'jarib' of bamboos joined by iron rings. Settlement operations included the measurement and classification of lands, and fixation of rates. Systematic surveys commenced in the 18<sup>th</sup> century.

"The Survey of India traces its birth to the appointment of Major James Rennell as Surveyor General of Bengal, by Lord Robert Clive and his council, on the first of January 1767. He placed all available surveyors under Major Rennell's orders, amongst them being the Frenchman Claud Martin, who later became famous as the founder of the La Martiniere Schools. By 1773, Rennell completed surveys of the possessions before relinquishing the post of Surveyor General in 1777. Rennell surveyed Bengal and Bihar, an area of over 1500 sq. miles, producing a continuous and uniform set of maps. The surveys, however, were far from complete or accurate in detail but were sufficient to meet the needs of the time. Rennell continued his interest in England, and his first Map of Hindustan reached India in 1783. The early history of surveys in India followed the East India Company's expanding areas of influence and conquest. The next Surveyor General, Thomas Call, like many others who followed him, undertook the task