

## RAJA RAJA CHOLA



- ✚ He was a Chola Emperor from present day **South India** who ruled over the Chola kingdom of medieval Tamil Nadu (parts of southern India), parts of northern India, two thirds of Sri Lankan territory, Maldives and parts of East Asia, between **985 and 1014 CE**
- ✚ Rajaraja built the **Brihadisvara Temple** or Peruvudaiyar Kovil in Thanjavur, one of the largest Hindu temples
- ✚ During his reign, the texts of the Tamil poets **Appar, Sambandar and Sundarar** were collected and edited into one compilation called **Thirumurai**.
- ✚ Rajaraja died in 1014 CE and was succeeded by his son **Rajendra Chola**.
- ✚ Rajaraja was a follower of **Shaivism** but he was tolerant towards other faiths and had several temples for **Vishnu** constructed and encouraged the construction of the **Buddhist Chudamani Vihara** at the request of the Srivijaya king Sri MaraVijayatungavarman.

## 'AROGYAPACHA' (TRICHOPUS ZEYLANICUS)

- ✚ In a project undertaken by State Inter University Centre of Excellence in Bioinformatics at the Department of Computational Biology and Bioinformatics, **University of Kerala** scientists have decoded the genetic make-up of Arogyapacha (Trichopus zeylanicus)
- ✚ It is a highly potent medicinal plant **endemic to the Agasthya hills in Southern Western Ghats**.



- ✚ This 'miracle plant' is known for its traditional use by the Kani tribal community to combat fatigue.
- ✚ It also acts as an anti-oxidant, aphrodisiac, anti-microbial, anti-inflammatory, immunomodulatory, anti-tumour, anti-ulcer, anti-hyper lipidemic, hepatoprotective and anti-diabetic.

### Kani Tribe:

- ✚ **Kani** is a tribe living in the Western Ghats area of **Kerala**, India
- ✚ Their use of the forest plant arogyapacha as a key ingredient in a herbal remedy called **Jeevani** was noted by visiting scientists in the 1980s.
- ✚ The formula was eventually developed as a commercial enterprise by Arya Vaidya Pharmacy, with the tribe's Kerala Kani Welfare Trust receiving license fees and royalties.
- ✚ Members have been encouraged to cultivate the plant.

### Agastya Mala Hills:

- ✚ Agasthyamalai hills are the southernmost section of the Western Ghats. Situated in Kerala and Tamil Nadu. Agasthamalai peak is the southernmost peak of peninsular India.
- ✚ **Agasthyamala Biosphere Reserve** is among 20 new sites added by UNESCO to its World Network of Biosphere Reserves in March 2016.

### WHAT IS TAX BUOYANCY?

- ✚ As the economy achieves faster growth, the tax revenue of the government also goes up.
- ✚ Tax buoyancy explains this relationship between the changes in government's tax revenue growth and the changes in GDP.
- ✚ It refers to the responsiveness of tax revenue growth to changes in GDP. When a tax is buoyant, its revenue increases without increasing the tax rate.
- ✚ A buoyancy ratio over 1 shows progressiveness in the revenue growth and opens up the prospect of rising Tax-to GDP ratio.

### WHAT IS TAX-TO-GDP RATIO?

- ✚ The tax-to-GDP ratio is a ratio of a nation's tax revenue relative to its gross domestic product (GDP).
- ✚ The tax-to-GDP ratio is used in conjunction with other metrics to measure how much a nation's government controls its economic resources.
- ✚ Tax revenue is the income collected by governments through taxation. It includes revenues from taxes on income, social security contributions, product sales tax, payroll taxes, and other items.

- ✚ Policymakers and analysts use the tax-to-GDP ratio to compare tax receipts from year to year. In most cases, because taxes are related to economic activity, the ratio should stay relatively consistent. Consequently, as the gross domestic product (GDP) grows, tax revenue should increase as well.

### **STARTUPS GET INDIA'S 1ST DRONE CERTIFICATIONS**

- ✚ Directorate General of Civil Aviation has, in a first, certified one drone model each of two Bengaluru startups, Skylark Drones and Throttle Aerospace Systems.
- ✚ The drones are compliant with the NPNT (No Permission, No Take-Off) protocol under the new drone policy.
- ✚ Under this protocol, a software layer allows drones to fly only after they get automated permission from authorities.

### **GREY SEALS CAN COPY HUMAN SPEECH**



- ✚ Researchers in Scotland said grey seals can copy the sounds of human words and songs including Twinkle, Twinkle, Little Star.
- ✚ The study by the University of St. Andrews researchers showed that three trained seals were able to imitate parts of popular tunes.
- ✚ It also suggested that grey seals could be a new model to study speech disorders.
- ✚ They use their vocal tracts the same way as Humans.