Several tropical trees of India are known to produce growth rings (Gamble, 1902; Chowdhary, 1939). But except Teak (Tectona grandis) and Toon (Cedrela toona) it is difficult to associate the exact year of their formation, which is a prerequisite for the tree-ring analyses, is yet to be established in these trees. The present study is an attempt to explore the potentiality of tropical trees with emphasis to Teak and Toon in dendroclimatic research. In the present study Teak has been analyzed from two sites of peninsular region of India and is recorded more suitable for dendroclimatic analysis than Toon, latter has been studied from Kalimpong subdivision, Eastern Himalaya. The chronology from Kerala extends from A.D 1590-2000 (411 years) and Madhya Pradesh extends from A.D 1836-1997 (162 years). Teak tree exhibits positive relationship with precipitation of current year’s June to October in Hoshangabad and with precipitation of current year’s May and August in Perambikulam. Positive relationship with precipitation of monsoon months suggests that early SW monsoon precipitation play an important role in the growth of Teak. For Toon, a 180-year (AD 1824-2003) ring-width chronology of this tree has been prepared. Tree ring data of Toon exhibit positive relationship to precipitation of current’s year June.

**MATERIAL AND METHODS**

**Tree-ring Sampling sites:**

Tree ring samples were collected from three sites under moist deciduous forests. Teak were collected from two sites viz., Hoshangabad (77°7’ E Long and 22°17’ and 22°50’ N Lat) in central part of India and Perambikulam (76°35’ and 76°50’ E. long, and 10°26’ and 10°28’ N. lat.) Southern part of India. Samples for Toon were collected from one site, Lava (88°8’ E Long, and 27°37’ N Lat), Kalimpong subdivision of Darjeeling, Eastern Himalaya. Samples are either in the form of core, which are collected through increment borer from living trees both Teak and Toon, or disc collected from the left over stumps or logged Teak trees.

**Sample Processing:**

The surfaces of the entire Teak disc were made smooth by using sanding machine. Rings were later examined and widths of these transverse surface of the core upwards. After that cores were cut by sanding machine. Rings were later examined and widths of these transverse surface of the core upwards. After that cores were cut by sanding machine. Rings were later examined and widths of these transverse surface of the core upwards. After that cores were cut by sanding machine. Rings were later examined and widths of these transverse surface of the core upwards. After that cores were cut by sanding machine.

**Acquisition of tree ring data & chronology development:**

The dates of each ring were determined by matching the ring-width patterns through cross-dating technique. A computer program COFECHA was used to check both the error and also verifying the dates. Ring-width data were standardized to form tree ring indices using computer program ARSTAN (RSA13).

**FUTURE DIRECTIONS**

Tropical broad-leaved taxa need to be analysed from diversified geographical regions to optimized suitable sites and trees for a network long climatic sensitive tree ring chronology for reconstruction of climate.

Emphasis for the good replication tree-ring samples of potential trees for such analysis. So far, expect some exploratory analyses (Pant and Borgaonkar, 1983; Bhattcharyya et al, 1992; Yadav and Bhattacharya, 1996) detailed tree ring study from broad-leaved taxa yet to come. The present study exhibits dendroclimatological prospect of two broad-leaved taxa viz., Teak (Tectona grandis) and Toon (Cedrela toona) growing in different geographical location.

**BACKGROUND OF THE PRESENT STUDY**

**Dendroclimatology** deals with the analysis of precisely dated tree ring series to produce accurate and quantitative information about past climatic changes and variability. In most of the tree ring/climate reconstructions, from mountainous or high latitude sites confers have been widely used. However, to build up the detailed global climatic scenario emphasis is needed on broad-leaved tropical trees, which occupy the major part of lower latitude sites. India for its diversified tropical trees under varied ecological conditions seems to be one of the promising regions, which would ensure a variety of potential trees for such analysis. So far, expect some exploratory analyses (Pant and Borgaonkar, 1983; Bhattcharyya et al, 1992; Yadav and Bhattacharya, 1996) detailed tree ring study from broad-leaved taxa yet to come. The present study exhibits dendroclimatological prospect of two broad-leaved taxa viz., Teak (Tectona grandis) and Toon (Cedrela toona) growing in different geographical location.