Project Updates: July 2016

Tetracentron sinense thrives in humid broadleaved, evergreen and deciduous forest up to transitional zone of mixed conifer in steep slopes, rocky cliffs, stream margin, and roadsides. *Quercus oxyodon* Miq*, Acer campbellii* Hok. *et al, Acer sikkimense* Miq are dominated tree species in *T. sinense* community. The altitude from 2700 to 2800 m asl is the prominent ranges of *T. sinense* habitat as ascertained by clustered population predominately with similar content of soil properties and average slope gradient 49% and 76% in average for Lamperi and Nobding. *T. sinense* population does not vary with changing soil properties as investigated in four plots in each sites. The paired sampled *t* test confirmed that, there is significant differences in radial growth performance *of T. sinense* in Nobding (*M* =1.74, *SD* =.664) and in Lamperi (*M*=1.39, *SD* =.538) with *t* (275), *P* = 0.00 and are non-responsive to climatic factors due to low sensitivity. Simple linear regression showed that ring width has relatively more association with minimum temperature which revealed that species will not adapt with increasing temperature in climate change scenario. The structure pattern of *T. sinense* in Nobding is uni-modal and sporadic in Lamperi requiring immediate conservation action through formulating critical conservation policy due to its remnant botanical feature.

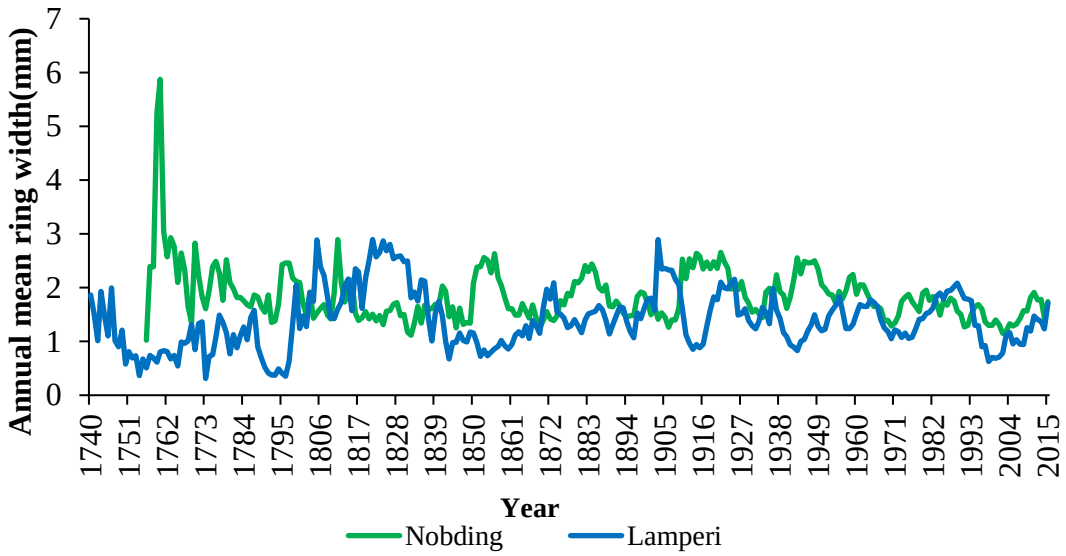

Figure 1: Annual ring width series over years

The result showed that annual ring width is negatively correlate with climatic factors, except with minimum temperature (r = -.751, P < .01) with linear regression ($\hat{y}$ = 4.67x+13.94, R^2 = 0.563) for Nobding and ($\hat{y}$ = 2.117x+8.457, R^2 = 0.255) in Lamperi. The relic species will not adapt with increasing temperature in climate change scenario.

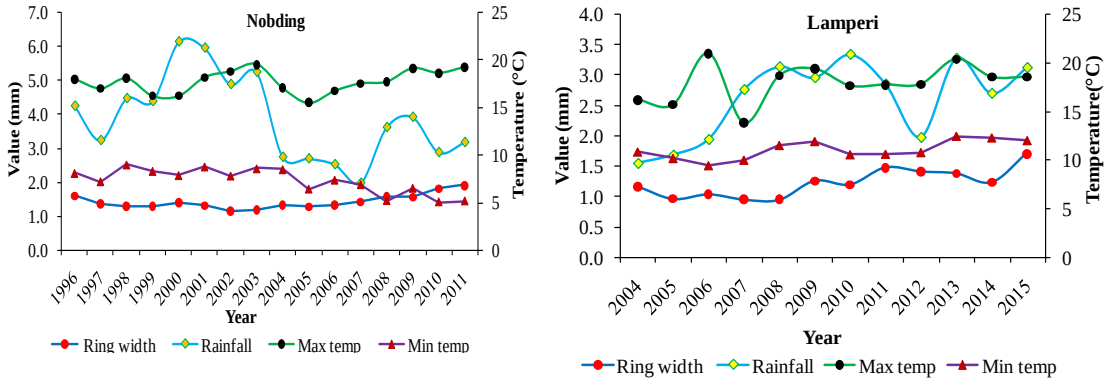

Figure 2: Comparison of annual ring width with climatic factors

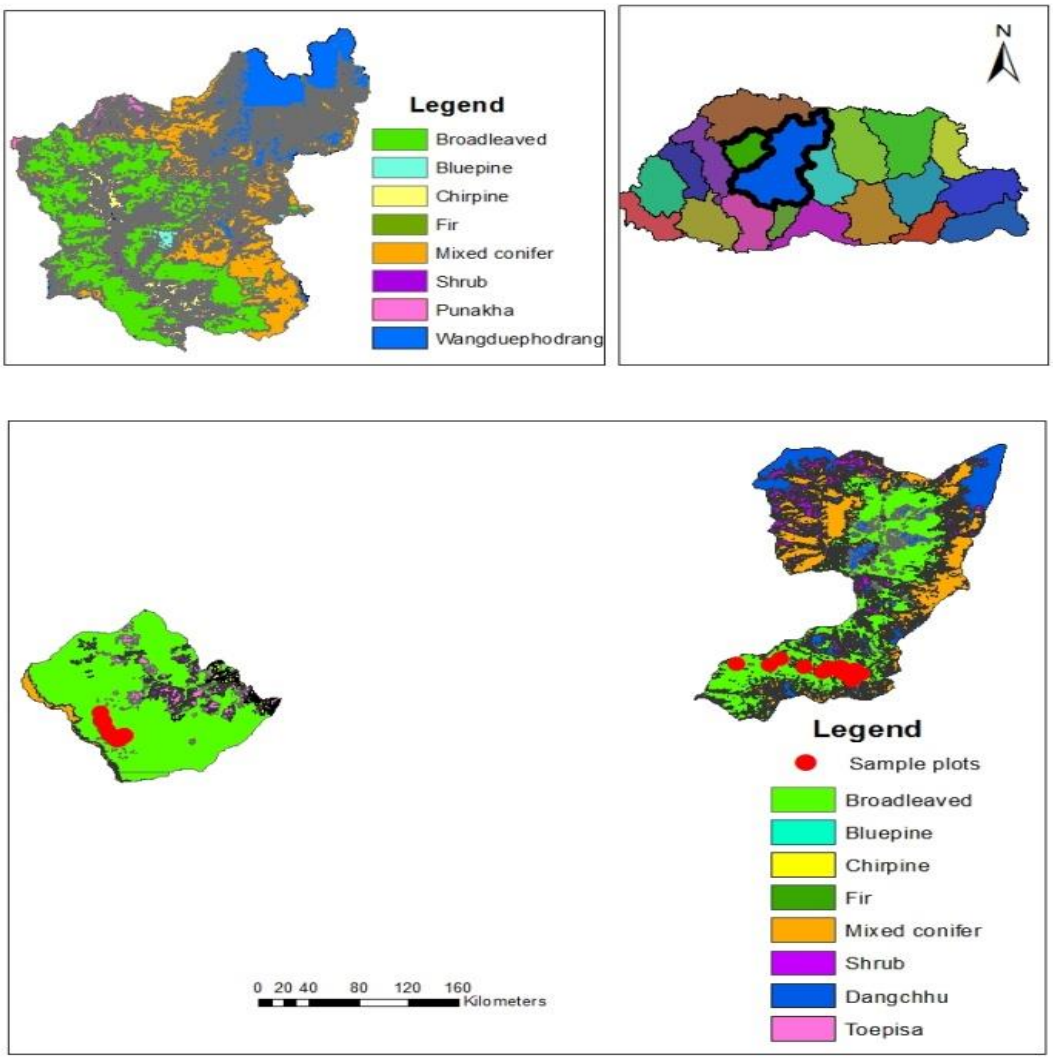

Figure 3: Map of the study area

Nursery raising and stump cutting are in process of examining. As farmers are busy in summer season, awareness portion are will be done very soon and same will be intimated to RSG.