Report on Official visit to RISO Rakesh Sinha – Jr. Research Officer KAPEG

Purpose of Visit

- To participate in experiments on fatigue testing of composites
- Techniques to prepare samples for microscopy and their observation in microscope
- Introduction to software Abaqus, which is used for finite element analysis of mechanical behavior and strength of components and materials.

Table 1: Activities at RISO

Pictures 27 256PM

Small wind turbines installed at RISO

Date/Activities

Arrival to Copenhagen

27/11/07

26/11/07

- Introduction to RISO National laboratory of Denmark.
- Visit towards wind turbine site
- Introduction to Abacus

28/11/07

- Planning of activities
- Discussion on Static test with Jakob regarding extensometer and its reading

29/11/07

- Discussion on static test with Jakob
- Further introduction and tutorial on Abacus by Hai Qeng

30/11/07

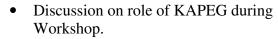
- Working on Abacus as per tutorial handouts.
- Discussion about the load cell with Jakob

3/12/07

- Discussion with Leon and further planning for **workshop**, presentation, abacus.
 - Workshop to be conducted from 10 to 12th Dec 2008.



Preparing setup for static test of wood



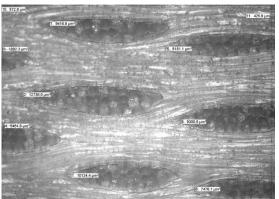
• KAPEG need to prepare budget for expenses in Nepal for workshop.

4/12/07

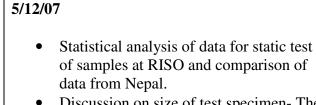
- Presentation on Introduction to KAPEG and its role.
- Experiments on Static test of 'Lakure' samples.



Giving presentation on introduction to KAPEG



Microscopic view of longitudinal section of wooden sample SL(lakure)



- Discussion on size of test specimen- The size or the thickness of the test specimen should be limited to 10 mm although there was not much variation in the stress
 - strain curve for 10mm and 5mm thickness of sample.
- Discussion on test standards and its effect on test results



Polishing wooden samples for the purpose of microscopic observation

6/12/07

- Visit to DTU
- Preparing samples for microscopy by polishing them and observing with microscope



Discussion with Bo about the microscopic observation of wooden sample

7/12/2007

- Discussion with Bo(RISO technical staff) regarding the use of microscope and microscopic view of wooden samples
- Discussion with Bo regarding the measurement of density of wood, its methodology and importance
- General introduction to hardness tester and its operating procedure

10/12/07

Departure from Copenhagen