

## TURKEY

In 2008 the Forest Service has continued to install Level I plot on 16x16 km grid. 393 plots were installed in 2008, bringing the total to 721 plots. In 182 plots were not sufficient trees for the selection of 24 trees in 4 clusters, On 398 Level I plots out of the 539 plots (9317 trees) the crown condition assessment has been conducted. The discolouration was assessed in 363 plots (8559 trees)

It appeared that the mean percentages of conifers such as *Pinus brutia* (21.6%), *Pinus nigra* (18.0%), *Pinus sylvestris* (19.9%), *Juniperus excelsa* (18.5%), *Abies nordmanniana* (16.2%) and *Cedrus libani* (16.5%) is better than the broadleaves such as, *Fagus orientalis* (26.8%), *Quercus cerris* (25.7), *Quercus petraea* (33.1%), *Quercus robur* (18.1%) and *Carpinus orientalis* (31.2%). The total mean defoliation in 2008 was 22,3% percent in Turkey. In total 24.5 % of the trees has a defoliation above 25% and is considered to be damaged. Plot wise the mean defoliation of 49% of the plots is above the 30% and considered to be damaged.

It turned out that the plots with the most damaged are located in the Northern part of Turkey. In five Regional Forest Directorates in Marmara and Blacksea regions the mean defoliation was above the 30%. In the hot and dry Mediterranean region the mean defoliation in the remained well below the 20%

In 2008, 4 more Level II plots were installed. In total there are now 15 Level II plots. 8 Level II plots were selected as key plots where the monitoring of deposition, litterfall, phenology, etc. has started. Mainly due to the lack of good laboratory facilities the Level II plot installations remain unsteady, but training and assessments on existing plots to gain experience are implemented. Crown condition and ground vegetation were assessed on 11 Level II plots and deposition samplers were installed in 6 plots while installing litterfall collectors only in 3 plots. Furthermore, ozone induced injury on vegetation was investigated in stands nearby the 5 Level II plots and soil and litter samples were taken in 4 plots. It is foreseen that the laboratory becomes operational in 2009.

The remaining Level I points on the systematic grid net are planned to be installed in 2009 and work will continue on the improvement of the data collection, data management and quality control. For the intensive monitoring further installation of equipment (deposition, litterfall and meteorological stations) is foreseen for 2009.













Convention on Long-Range Transboundary Air Pollution  
 International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests *and*  
 European Union Scheme on the Protection of Forests against Atmospheric Pollution  
Annual report on health status of main tree species on the basis of defoliation:

**SURVEY 2008**  
**ALL SPECIES**

form **C**

Country: **TURKEY**

All species

no. of sample plots	no. of sample trees	% trees defoliated						
		class 0 not defoliated	class 1 slightly defoliated	class 2 moderately defoliated	class 3 severely defoliated	class 4 dead	class 2 to 4 moderately to dead	class 1 to 4 slightly to dead
<b>398</b>	<b>8978</b>	22,84	52,57	22,09	2,44	0,06	24,59	77,16

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