## **Forest SaVR – A Virtual-Reality Application to Raise Awareness of Deforestation**

Jean Botev and Adriano Viegas Milani, University of Luxembourg



## **Exploring Forest States**

Deforestation and its effects on climate change are serious issues, however, the dissociation between people's knowledge of adverse effects and their lifestyles presents a major problem. Interactive digital media in general, and virtual reality in particular, have a unique potential to close this gap.

Forest SaVR is a VR application that places the users in a forest environment to experience the various stages and effects of deforestation across realistic conditions. The various forest states are shown above, ranging from a perfectly intact forest (healthy) or state with only minor human interventions (semi-healthy), such as a road and a cabin, over a cleared forest (burned or logged) to a plantation setting (cultivated).

## **Realistic Environment**



Dr. Jean Botev

DCS / Com.Sys, University of Luxembourg, Campus Belval, Avenue de la Fonte 6, L-4364 Esch-sur-Alzette, Luxembourg

Email: jean.botev@uni.lu Phone: +352 466644 5472

Web: https://vrarlab.uni.lu

Every time an experience is initiated, the terrain and environment are procedurally generated with semi-random tree/object placement based on Perlin noise, combined with different offset parameters for more organic distribution.

To make the environment as immersive as possible, we replaced standard directional lighting with a volumetric lighting solution. Realistic audio complements each state, as non-visual factors are equally important to the credibility and believability of VR-based environments.



