

2013 Marianne Schmink Innovation Award in Tropical Conservation and Development

TCD congratulates **Anand Roopsind**, PhD student in UF's Biology Department, and his partners, **UF REDD+ Adaptation Working Group** and the **Iwokrama International Centre for Rainforest Conservation and Development**, as recipients of the 2013 Marianne Schmink Innovation Award. Their winning project is entitled "*Identifying the drivers of "forest degradation" from logging in REDD+ landscapes using Agent-Based Modeling*". This project goes beyond "business as usual" by finding novel ways to assess forest degradation that results from inappropriate tropical forest management and developing appropriate interventions to mitigate its impacts.



Anand during the field work in Guyana

The team argues that finding ways to account for forest degradation in addition to actual deforestation is necessary to fully account for CO₂ mitigation in REDD+ schemes. They will focus their efforts on selective logging activities at the level of the individual forest worker where decisions regarding methods of actual timber extraction occur. Such decisions impact the level of residual damage in forest stands.

Anand states that "*to understand the choices that forest workers make, it is imperative to understand the socio-cultural and economic conditions they experience.*" The work lends itself to a complex adaptive systems approach, according to Anand, because of the "*complicated series of decisions and factors [that interact] in uncertain ways and which are superimposed on the biophysical realities of the production forests. Thus, we need to know how contextual factors, as well as more direct estimations of personal costs and benefits, affect worker decisions.*"

To do this, the team will use an agent based modeling (ABM) approach to understand where and what type of interventions would have the greatest effect in reducing forest degradation associated with selective logging. In addition, the project will incorporate a participatory companion modeling component. In this component, forest workers will interact with ABM in a game format that allows them to test out first-hand the effects of different policies and socio-economic conditions on logging practices.

The innovative approaches used to address forest degradation issues that result from selective logging makes this team, led by Anand Roopsind, a great choice for the winner of the 2013 Schmink Innovation Award.