

# **Postdoctoral Research Associate in Earth System Modeling**

**Environmental Sciences Division  
Biological and Environmental Sciences Directorate  
Oak Ridge National Laboratory  
Oak Ridge, Tennessee**

ORNL09-06-ESD

## **Project Description:**

Funding is available for post-doctoral research position to develop and apply prognostic land use and land cover capabilities within an existing coupled climate-biogeochemistry modeling framework. The goal of this project is to evaluate the influence human decisions related to land use allocation on the dynamics of a fully-coupled climate-carbon-nitrogen cycle model. Prognostic land use algorithms from an existing Integrated Assessment Model (IAM) will be synchronously coupled within the Carbon-Nitrogen version of the Community Land Model (CLM-CN), running as a component of the Community Climate System Model (CCSM). Particular attention will be given to the effects of agriculture, grazing, biofuel production, and forest management on climate-carbon cycle feedbacks, carbon-nitrogen cycle interactions, and impacts on ecosystem age-class dynamics.

## **Qualifications:**

This position requires a Ph.D. in earth, geosciences or computer sciences related field. Preference will be given to candidates with numerical modeling experience and expertise in at least one of the following subject areas: terrestrial biogeochemistry, agricultural economics, forest management, biofuels, or terrestrial ecology. Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment.

## **Technical Questions:**

Questions regarding the position can be directed to Dr. Peter Thornton ([thorntonpe@ornl.gov](mailto:thorntonpe@ornl.gov)).

Note: Position to begin as soon as possible, with funding available through December 2010.

## **How to Apply:**

Qualified applicants must apply online at [https://www2.ornl.gov/ORNL\\_POST/](https://www2.ornl.gov/ORNL_POST/). All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at <http://www.ornl.gov/orise/edu/ornl/ornl-pdpm/application.htm>. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S. citizens without regard to

race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.