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 **The Earth Institute**
AT COLUMBIA UNIVERSITY



Ruth DeFries is the Denning Family Professor of Sustainable Development in the Department of Ecology, Evolution, and Environmental Biology, Columbia University. Her research investigates the relationships between human activities, the land surface, and the biophysical and biogeochemical processes that regulate the Earth's habitability. She is interested in observing land cover and land use change at regional and global scales with remotely sensed data and exploring the implications for ecological services such as climate regulation, the carbon cycle, and biodiversity. Previously, Dr. DeFries worked at the National Research Council with the Committee on Global Change and taught at the Indian Institute of Technology in Bombay. She is a fellow of the Aldo Leopold Leadership Program.

Her current research projects include integrating coarse and fine resolution satellite data to monitor land cover change throughout Amazonia, the investigation of land use change in and around protected areas in Land-Cover and Land-Use Change sites and the synthesis of rates and consequences for biodiversity, and estimating carbon emissions from historical changes in global agricultural land. Dr. DeFries received her Ph.D. in 1980 from the Department of Geography and Environmental Engineering at Johns Hopkins University. She received her B.A. in Earth Science, summa cum laude, in 1976 from Washington University in St. Louis, MO.

In 2007, Professor DeFries was awarded a MacArthur Fellows Program Award for her outstanding work using remote sensed satellite imagery to explore the relationship between the Earth's vegetative cover, human modifications of the landscape, and the biochemical processes that regulate the Earth's habitability. Combining expertise with sophisticated satellite-imaging systems and a deep understanding of the environmental effects of agriculture and urbanization, DeFries is providing a clearer picture of the processes transforming our planet.

