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**Student
Spotlight**

The Student Spotlight column introduces our many student researchers and highlights their current research work. We plan to feature brief profiles on one or two students in each issue.

Gauri-Shankar Guha is a Ph.D. candidate in the Department of Energy, Environmental & Mineral Economics (EcEEM) at The Pennsylvania State University. He expects to graduate in the summer of 2001. Estimating economic losses from earthquakes is one of the three essays of his dissertation, which relates to the economic dimensions of man-environment interactions. He is currently involved in an MCEER-funded project entitled "Loss Estimation Methodologies and Indirect Losses." His advisor, Professor Adam Rose, the Principal Investigator of the project, is one of the leading experts in the world on impact assessment and regional economic analysis, using Input-Output (I-O) and Computable General Equilibrium (CGE) techniques.

Before joining the doctoral program at Penn State, Gauri headed the ACRP, a countrywide environmental research project of the Government of India. He was fascinated by the challenge of studying the impacts of extreme natural events (like earthquakes

and hurricanes) and climate change on human systems. The EcEEM program provided the ideal niche, and Gauri feels fortunate at being "able to examine, formalize and test some of the intuitive hypotheses on the subject, as well as to obtain great credentials."

Being part of MCEER is "also a lucky break...since MCEER is an excellent research fraternity providing access to a very high quality expert knowledge-base, and peer review." His research with Dr. Rose represents a methodological breakthrough in estimating economy-wide indirect impacts (for example, a business may suffer losses even when it is not directly damaged, but its suppliers or customers are) in the wake of an earthquake, using CGE models. Indirect losses are difficult to estimate and tend to be ignored, but they are significant and can be very different across sectors and sub-areas of the economy. The new methodology will make it possible to estimate indirect impacts, when direct impacts are known from a survey.

Ideally, Gauri would like to work in an international organization, consulting on disaster/environmental impact economics and management. This field is very challenging, since "even though disasters may not increase per se, their impacts are increasing, due to the rising density of human settlements and investments on the ground." ❖



■ *Gauri Guha talks with Stephanie Chang and Walter Svekla prior to the NSF site visit*