# Pollution can make citizens—both rich and poor – go green

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Air pollution is one of the many environmental harms urban Chinese may encounter Credit: Vanessa Hull, Center for Systems Integration and Sustainability at Michigan State University

Nothing inspires environmentalism quite like a smog-filled sky or a contaminated river, according to a new study that also indicates that environmentalism isn't just for the prosperous.

People living in China's cities who say they've been exposed to environmental harm are more likely to begreen: re-using their plastic grocery bags or recycling. Moreover, the study, published this week in the international journal *AMBIO*, indicates that the poor would sacrifice economic gain to protect their environment.

"The human and natural worlds are tightly coupled and we cannot protect the environment without empirical studies on how rich and poor people are understanding and reacting to the natural world around them." said Jianguo "Jack" Liu, a co-author of the *AMBIO* paper and director of the Center for Systems Integration and Sustainability (CSIS) at Michigan State University.

The paper, "How Perceived Exposure to Environmental Harm Influences Environmental Behavior in Urban China," flies in the face of the conventional wisdom that the poor cannot afford to protect the environment.

"We feel it's a major contribution to provide empirical evidence that environmental harm is one of the most important predictors of environmental behavior," said Xiaodong Chen, who conducted the study while working on his doctorate at CSIS.

"Environmental harm could be more important than economic status in predicting environmental behavior. If people are affected by degraded environmental conditions, then even people with low economic status still may sacrifice some economic benefit in order to protect the environment."

Indeed, the growing environmental consciousness in China has been accompanied by increased involvement by the public in environmental protection. For instance, the paper notes that in 2005 there were some 1,000 protests per week related to environmental pollution in China, a number projected to increase rapidly.

Scientists have studied environmental attitudes for years, but the paper notes that it's behavior that ultimately counts. There is a growing body of literature on environmental attitudes and behavior in China, yet little is known about how people perceive and respond to personal exposure to

environmental harm.

Chen and co-authors Liu; Nils Peterson of North Carolina State University and a CSIS alumnus; Vanessa Hull, doctoral candidate in CSIS; Chuntian Lu, MSU sociology doctoral student; and Dayong Hong of Renmin University in China used China's General Social Survey of 2003, which was the first nationwide survey to address this issue.

Some 5,000 urban respondents were asked specifically about their environmental behavior—if they sorted their garbage to separate recyclables, re-used plastic bags, talked about environmental issues with family or friends, participated in environmental education programs, volunteered in environmental organizations or took part in environmental litigation.

The people taking the survey were allowed to define environmental harm for themselves.

The authors found that actions that resulted in direct results such as environmental litigation were the ones that people most likely turned to after being exposed to environmental harm. Other actions, such as trash recycling programs, may produce indirect results. However, people's views about the environment are most likely to inspire them to participate in environmental behaviors if those behaviors are ones that they can control, such as re-using plastic bags and talking about environmental issues.

"Basically, it means that if people are affected by environmental harm, they feel they should do something positive, and something they themselves can control," Chen said.

The findings, Chen said, can help instruct policy to transform recognition of environmental harm into environmental action.

Provided by Michigan State University

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