Goings On

RFF Scholars Evaluating Delhi's Switch to CNG Auto Fuel as Model for Change

Ruth Bell, Urvashi Narain, and David Simpson

In 1998, after 13 years of legal back-and-forth, the Supreme Court of India ordered that all public passenger vehicles in Delhi run on compressed natural gas (CNG). Five years later, the court's order has had an apparent significantly positive impact on pollution levels in Delhi.

The court's order has not been without its critics. However, its decision has sparked interest among environmental advocacy groups in countries throughout Asia that are frustrated with halting implementation of environmental laws and policies in their countries, many of which are beset by crippling levels of air pollution. They want to understand how Delhi improved its air quality and whether they can replicate that experience at home.

The broader question we would like to consider is, what is a reasonable way to jump-start environmental protection where it has been paralyzed or stalled? We suggest that greater progress might be achieved by taking a closer look at what is really going on in the developing world, to find examples of programs that are fighting the trend and achieving their goals. Along with researchers at Jawaharlal Nehru University, we are studying the developments in Delhi to determine whether their experience is a unique solution for a particular city and country or whether it can be replicated elsewhere.

In order to do that, we first have to reconstruct what happened: retrace the steps that led up to the court's order, understand how the court arrived at its decision, identify the institutions that supported the court, analyze the role played by the executive and legislature in this affiair, define the role of the court in Indian society, and determine the basis of its authority. In short, we have to understand and describe the context in which the decision was made and implemented.

We think this project has important lessons both for other countries and for the international donor and development institutions that offer advice, counsel, and imperatives to developing countries to "clean up their act."

Although theoretically "better" solutions than the CNG mandate were proposed, we are examining whether the solution the court chose was the best possible, given the constellation of circumstances that constitute reality on the ground. The Indian Supreme Court's decision reflected the court's awareness that if it chose increasingly cleaner diesel as the fuel of choice—a fuel that was attractive for a variety of reasons—drivers could easily have sabotaged the decision by adulterating the fuel with cheaper kerosene after filling their tanks at sanctioned filling stations. CNG allows for no such evasion.

In addition to examining the decision, we also are studying the implications for Indian democracy. The Indian Supreme Court enjoys widespread respect in India and that partly explains its authority. We will be exploring questions such as: What is the impact on a court's authority when it intervenes as it did in Delhi? Was the court acting in accordance with democratic principles or as a kind of superlegislature and executive? And, what are the long-term implications of the court's action for the power and authority of the other branches of government?

Visit www.rff.org/clearingtheair to learn more about this project. ■

Changing U.S. Patent Policy Could Bring Food Security to Africa

Michael R. Taylor and Jerry Cayford

Substantial improvement in agricultural productivity is essential for achieving food security and reducing chronic rural poverty in many developing countries, especially in sub-Saharan Africa, according to a new RFF Report by Senior Fellow Michael R. Taylor and Research Associate Jerry Cayford. Modern agricultural biotechnology has the potential to solve some of the basic productivity problems (such as insect control and drought) that plague the millions of small-scale farmers the backbone of African agriculture.

However, the U.S. and European countries that have developed these tools closely guard them behind a thicket of overlapping patents that hinder access by developing countries. For example, there are 70 different patents and licenses that guard vitamin A-enriched "golden rice," which could prevent childhood blindness caused by the lack of that nutrient.

In *American Patent Policy, Biotechnology, and African Agriculture: The Case for Policy Change,* the authors analyze both the formal U.S. patent system and U.S. patent policy in the international arena to look at how current policies could be adapted to improve access without undercutting the innovation incentives patents now provide.

American patent policy needs greater flexibility to give African farmers access to modern biotechnology, Taylor said, speaking at an RFF seminar in December. Obviously, patent policy is neither the direct cause nor the sole solution to hunger in Africa, he said. The achievement of food security is a complex social, economic, and political problem that is affected by a host of U.S. policies and programs, including food aid, agricultural subsidies, and trade barriers that create an unlevel playing field.

Agricultural biotechnology as a tool for providing food security in sub-Saharan Africa carries particular weight, however, because the region was largely bypassed during the "Green Revolution" of 40 years ago that brought genetically improved seed stock, fertilizer, and irrigation methods to developing countries throughout southeast Asia.

Public knowledge about critical concepts, such as germplasm, is becoming increasingly privatized, said Donald Kennedy, editor of the journal *Science* and president emeritus of Stanford University, who also spoke at the seminar. The knowledge "commons" has become more of an anticommons, he said.

The report finds that the holders of biotech patents rarely have economic incentive to use these processes and gene traits for the benefit of farmers in developing countries. To reach them, the authors said, technology will usually have to move through public or public-private agencies, a necessity for which current American policy makes little provision.

The United States and other industrialized nations are leading a campaign to establish uniform patenting standards and practices worldwide, despite widely differing conditions affecting technology development and transfer, especially in developing countries. The authors argue that the United States should support developing countries in exercising the flexibility they already have under the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property to devise patent systems that meet local needs. American patent law and policy can be changed, they say, to provide poor countries better access to patented know-how without diminishing incentives for invention or creating direct competition with American patent holders. ■

American Patent Policy, Biotechnology, and African Agriculture is available on the RFF website at www.rff.org/PatentPolicy.cfm.

Creedon Named RFF Vice President for External Affairs

Lesli A. Creedon has been appointed vice president for external affairs. She has served as RFF's director of development since 1999 and corporate secretary since 2001. During that period, she led RFF's 50th anniversary campaign, which raised over $24 million, including the establishment of four endowed chairs. In addition to her fundraising and board responsibilities, she now will also manage RFF's communications strategy and outreach efforts.

"Lesli Creedon has improved everything in which she's been involved at RFF. Working with Jonathan Halperin and the other members of RFF's excellent communications team, they will build on the progress we've made and make RFF's research even more accessible and valuable to those in the policy process," RFF President Paul Portney said.

Prior to joining RFF in 1999, Creedon worked at the Brookings Institution for several years, most recently as director of the Brookings Council. She has also held strategic development positions at the Aspen Institute and the Economic Policy Institute in Washington. She is a graduate of Miami University with a degree in economics, political science, diplomacy, and foreign affairs. ■

The Food Safety Research Consortium Rolls Out New Risk-Ranking Model

Jody Tick

Since its launch at RFF in February 2003, the Food Safety Research Consortium (FSRC) has been developing a model to rank the public health impact of specific foodborne hazards. The model serves as a tool for analysts to better understand which food/pathogen combinations have the largest impact on public health. For example, should we be more concerned about Salmonella in chicken or E. coli in beef?

The project team, comprised of RFF, the University of Maryland, and Iowa State University, rolled out the model to the stakeholder community at a conference hosted by RFF in September. The project has been supported by a grant from The Robert Wood Johnson Foundation and conference presentations can be viewed on the FSRC website at www.rff.org/FSRC.

Foodborne hazards are a much larger, more insidious threat than most of us realize: the Centers for Disease Control and Prevention (CDC) estimates that there are 76 million foodborne illnesses each year, with an associated 325,000 hospitalizations and 5,000 deaths. In addition to the sheer numbers of those affected, the challenge of food safety is that it is a dynamic and evolving problem. The old-fashioned paradigm in which the majority of meals

were prepared at home from a relatively limited list of foodstuffs has become a thing of the past. Today, many more meals are eaten away from home in restaurants or fast food establishments, and the globalization of the food supply has afforded us a variety and availability of food that is historically unprecendented. With these emerging food trends come new issues in food safety.

But what would a more science- and risk-based food safety system look like? The FSRC is working to create a picture of such a system through the formulation of tools that will help policymakers design and manage a more efficient food safety system. The risk-ranking model represents the first phase of research to develop such decision tools, and future plans of work include the development and integration of models to prioritize opportunities to reduce risk and allocate resources accordingly. The FSRC's comprehensive program of work requires a new approach to understanding the food system as a whole and the interaction of factors all across the system that can contribute to the causation and prevention of foodborne illness.

Addressing this need for a new approach, the FSRC's founding members are an interdisciplinary group of institutions and researchers that include the following: the Center for Food Safety at the University of Georgia; the Department of Epidemiology and Preventive Medicine at the University of Maryland School of Medicine; the Food Marketing Policy Center at the University of Massachusetts, Amherst; the Institute for Food Safety and Security at Iowa State University; the Western Institute for Food Safety and Security at University of California, Davis; and RFF. Recently, the consortium welcomed a new member to the group, The National Food Safety and Toxicology Center at Michigan State University, which complements the other member organizations and the work of the FSRC.

Through this collaboration, the FSRC has already started its next phase of work supported by a grant from the U.S. Department of Agriculture's National Integrated Food Safety Initiative. The new project aims to develop a conceptual framework for identifying and evaluating opportunities in the food system (farm to table) for interventions that will reduce the burden of foodborne illness. ■

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