energy have enabled an inefficient industrial nation to achieve a $1 trillion economy that is growing by almost seven percent a year.

Russia has soaked its dependent foreign customers during frigid winters, sidled up to China in conflicts with the West, and used the government-dominated Gazprom to curtail gas flow to Ukraine and Georgia when democratic movements threatened the pro-Russia old guard in those countries. But all the aggressive posturing is nothing more than a "well-crafted piece of Russian PR," Goldthau asserts. Russian leader Vladimir Putin has "limited ability" to use oil as a weapon because the Russian economy is as dependent on oil revenue as its customers are on its oil.

Moreover, Russia's accessible energy supplies are gradually running out and Gazprom has been slow to develop reserves, in part because of the vast amount of capital this would require. Since the collapse of the Soviet Union, the company has coasted along on "legacy" gas from fields opened up and transmission lines built in the last two decades of the Soviet era, notes geographer Matthew J. Sagers in ***Eurasian Geography and Economics*** (Nov. 2007). But in recent years Gazprom's output has been essentially flat even as demand increased, and its most promising reserves are on the Yamal Peninsula, a landmass above the Arctic Circle where conditions defy imagination. Winds can rise to a steady 90 miles an hour there, wind-driven water up to 33 feet deep covers low-lying coastal land several months of the year, and solid ground gives way to friable sand that offers little support for drill pads, pipelines, and other infrastructure. The estimated cost of opening up the area is $31 billion, if all goes perfectly according to plan.

Gazprom's challenges are hardly limited to the technical realm, write B. Kuz'man, its chief personnel manager, and two colleagues in ***Problems of Economic Transition*** (Sept. 2007). In recent years, the company has been forced to sell natural gas at "dumping prices" inside Russia. Even so, nonpayment has been a big problem; the Russian Ministry of Defense is one of the "persistent" deadbeats. Gazprom's interests are subordinated to socioeconomic and state problems, Kuz'man says. Until 2004 it was responsible for recreation centers, hospitals, airports, railroads, hotels, and farms that occupied almost as many of its workers (31 percent) as the transportation of gas (33 percent).

Nonetheless, rising energy prices have boosted the Russian state budget and fueled Russian aggression, according to Charlie Szrom and Thomas Brugato of the American Enterprise Institute in ***The American*** (Feb. 22, 2008). Citing an "aggression index" they compiled, the authors found that the higher the price of oil over the past seven years, the more likely Russia has been to sell arms to terror-sponsoring states, conduct threatening military exercises, and interrupt energy supplies to neighbors.

For Russia, Szrom and Brugato conclude, today's high-priced oil and gas have supplied "liquid courage."

OTHER NATIONS

A Tipping Point for GM Foods?

THE SOURCE: "Genetically Modified Rice, Yields, and Pesticides: Assessing Farm-Level Productivity Effects in China" by Jikun Huang, Ruifa Hu, Scott Rozelle, and Carl Pray, in ***Economic Development and Cultural Change***, Jan. 2008.

Scientists have been working on genetically modified (GM) plants for 25 years, but the developing world has rejected virtually every bioengineered food crop. Rice is one of the world's great staples, for example, but only Iran markets a GM version. Now China may be poised to join it. And if China goes, competitive pressures may force the rest of the world to follow.

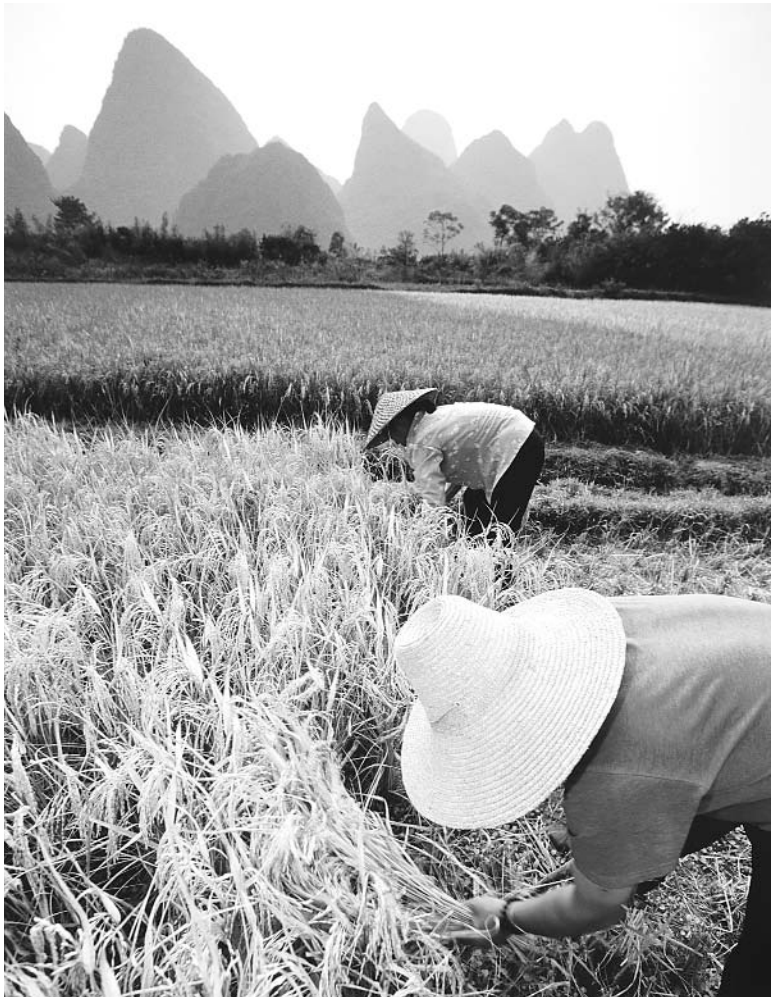
Time was when the ability of scientists to engineer seeds to fend off insects and disease was touted as the salvation of a hungry world. But that dream has collided with consumer concerns about "Frankenfoods," strong antibiotechnology activism, and governments' fears of trade retaliation. GM corn and soybeans are widely grown for animal fodder in the United States and Canada, but fierce opposition from these countries' trading partners has checked growth. Industrial crops such as GM cotton and corn, however, are commonly harvested in other countries, including China and South Africa.

In China, four versions of GM insect- or disease-resistant rice have made it to the third and final stage of safety trials required by Beijing, write Jikun Huang and Ruifa Hu, of the Chinese Academy of Sciences, and Scott Rozelle and Carl Pray, of

Stanford and Rutgers, respectively. But until their study, little research had been conducted on whether the crops live up to their billing. After collecting data for three years from farmers in 320 households, the researchers concluded that GM rice increases farm productivity, mostly by cutting the cost of pesticides. They found that GM rice yielded at least as much per acre—and sometimes more—while requiring only one-eighth as much pesticide. That matters a lot to China, which faces pollution and health problems as the world's largest pesticide user.

Chinese authorities, having already spent several billion dollars on agricultural biotechnology research and development, are "struggling" with the issues of biosafety and the acceptability of GM rice domestically and in international trade. Three years ago, the authors wrote that China was on the threshold of commercializing GM rice. In their current report, they make no predictions on when or even if GM rice will be approved; they think China should "seriously consider" the move. Yet with rice consumption decreasing as affluence enables the Chinese to eat more meat and other foods, some researchers question the need for controversial GM rice.

Even so, given China's vast population, GM rice could help the poor and add $4.2 billion a year to the economy, the authors write. It could also set off a global chain reaction, leading to the commercialization of GM rice, wheat, corn, and other crops, not only in China but around the world.



China boasts the developing world's largest biotechnology research program, but has yet to sanction the sale of genetically modified rice. If it does, the rest of the world may follow.

OTHER NATIONS

Strictly Merit, Indian Style

THE SOURCE: "In the Name of Globalization: Meritocracy, Productivity, and the Hidden Language of Caste" by Surinder S. Jodhka and Katherine Newman, in ***Economic and Political Weekly***, Oct. 13, 2007.

The merit principle has conquered India. Human resource managers of Indian companies say that the traditional bases of hiring—nepotism, regional ties, and caste—aren't affordable now that India is becoming an economic powerhouse. But India has its own way of judging merit, write sociologists Surinder S. Jodhka of Jawaharlal Nehru University in New Delhi and Katherine Newman of Princeton. Virtually every hiring manager the two researchers interviewed emphasized that asking questions about family background was critical in evaluating a potential employee.