

[Home](#)
[About Worldwatch](#)
[- Mission](#)
[- Staff](#)
[- Jobs](#)
[- Board of Directors](#)
[- Annual Report](#)
[Publications](#)
[Programs](#)
[Online Features](#)
[Press Room](#)
[Global Partners](#)
[Join Us](#)
[Contact Us](#)

Sign up for e-mail updates from Worldwatch Institute

Join the Institute  
**Donate Now!**

 [RSS Feed](#)

## Poll

Do you think cloud seeding is an environmentally responsible choice for ensuring good weather during large outdoor events?:

Yes. There is no evidence of negative impacts from cloud seeding.

No. Human interference with the weather system is irresponsible.

Maybe. The impacts of cloud seeding are not fully known, and therefore we should be extremely cautious in its usage.

[Home](#) » [Press Room](#) » [News](#)

## State of the World 2006: China and India Hold World in Balance

by Worldwatch Institute on January 11, 2006

Washington, D.C. The dramatic rise of China and India presents one of the gravest threats—and greatest opportunities—facing the world today, says the Worldwatch Institute in its [State of the World 2006 report](#). The choices these countries make in the next few years will lead the world either towards a future beset by growing ecological and political instability—or down a development path based on efficient technologies and better stewardship of resources.

"Rising demand for energy, food, and raw materials by 2.5 billion Chinese and Indians is already having ripple effects worldwide," says Worldwatch President Christopher Flavin. "Meanwhile, record-shattering consumption levels in the U.S. and Europe leave little room for this projected Asian growth." The resulting global resource squeeze is already evident in riots over rising oil prices in Indonesia, growing pressure on Brazil's forests and fisheries, and the loss of manufacturing jobs in Central America.

View [State of the World 2006: China, India, the U.S., Europe, and Japan by the numbers](#), a collection of PowerPoint images from the *State of the World 2006* press conference.

The United States still consumes three times as much grain per person as China and five times as much as India, notes the report. U.S. per-capita carbon dioxide emissions are six times the Chinese level and 20 times the Indian level. If China and India were to consume resources and produce pollution at the current U.S. per-capita level, it would require two planet Earths just to sustain their two economies.

"We were encouraged to find that a growing number of opinion leaders in China and India now recognize that the resource-intensive model for economic growth can't work in the 21st century," Flavin said. "Already, China's world-leading solar industry provides water heating for 35 million buildings, and India's pioneering use of rainwater harvesting brings clean water to tens of thousands of homes. China and India are positioned to leapfrog today's industrial powers and become world leaders in sustainable energy and agriculture within a decade."

In 2005, China alone used 26 percent of the world's steel, 32 percent of the rice, and 47 percent of the cement. Though their per-capita resource consumption is still low, with their huge populations China and India are joining the United States and Europe as ecological superpowers whose demands on the world's ecosystems will vastly outstrip those of other countries, according to the report.

The chemical spill on the Songhua River in northern China in November 2005, which forced a four-day closure of the water system of the city of Harbin, illustrated the huge environmental challenges facing Asia today. The spill led to the resignation of China's top environmental official, Xie Zhenhua, who authored the foreword to *State of the World 2006* shortly before the disaster. Other challenges facing China and India include:

- China has only 8 percent of the world's **fresh water** to meet the needs of 22 percent of the world's people. In India, urban water demand is expected to double—and industrial demand to triple—by 2025.
- India's **use of oil** has doubled since 1992, while China went from near self-sufficiency in the mid-1990s to the world's second largest oil importer in 2004. Chinese and Indian oil companies are now seeking oil in countries such as Sudan and Venezuela—and both have just started to build what are slated to be two of the largest automobile industries in the world.
- China and India have the only large **coal-dominated energy systems** in the world today—coal provides more than two-thirds of China's energy and half of India's. Both countries are therefore central to future efforts to slow global **climate change**: China is already the world's second largest emitter of climate-altering carbon dioxide, while India ranks fourth.
- If Chinese per-capita **grain consumption** were to double to roughly European levels, China alone would require the equivalent of nearly 40 percent of today's global grain harvest. Already, China's growing imports of **grain, soybeans, and wood products** are placing great pressure on the biodiversity of South America and Southeast Asia.

Such trends have a number of influential Chinese and Indians questioning whether their countries are on the right path. Zjeng Bijian, Chair of China Economic Reform, is quoted in the book calling for "a new path of industrialization based on technology, low consumption of resources, low environmental pollution, and the optimal allocation of human resources." Sunita Narain of India's Centre for Science and Environment writes in the book's foreword, "The South—India, China, and all their neighbors—has no choice but to reinvent the development trajectory."

The report notes that China and India are already benefiting from South-South sharing of ideas,

from biofuels to bus rapid transit systems. Recent commitments by both nations to develop large wind power and solar energy industries are likely to make a host of new technologies affordable for poor countries. Their early successful efforts to employ new approaches include:

- In 2005, both nations committed to accelerating the development of **new energy sources**. India will seek to increase renewable energy's share of its power from 5 percent to 20-25 percent, while China's ambitious renewable energy law stands a good chance of jumpstarting wind power, biofuels, and other new energy options.



- Seeking to provide mass mobility to over a billion people without diverting resources required to meet other human needs, the Chinese Ministry of Construction recently declared **public transport** a national priority and is promoting Bus Rapid Transit (BRT).
- In India, where 43 percent of the annual rain and snowfall fails to reach rivers and aquifers, NGOs have championed **water harvesting**, using simple technologies that capture and store water before it can flow away. In Chennai, the country's fourth largest city, some 70,000 buildings harvest rainwater.
- In 2004, China implemented **automobile fuel economy standards** that are based on European standards and tougher than those in the United States. China's commitment to energy efficiency is also reflected in its status as the world leader in producing and installing compact fluorescent light bulbs.
- Indian officials recently replicated successful **small-scale biodiesel** programs in 100 additional villages in the hopes of bringing revenue to depressed rural communities while powering local electrical grids and irrigation pumps.
- New laws in 2004 gave Chinese **non-governmental organizations** (NGOs) stronger legal standing to participate in policy decision-making. There are now more than 2,000 environmental NGOs in China—a sector that barely existed as recently as the early 1990s.

The report calls for broader cooperation between China, India, Europe, and the United States to develop new energy and agricultural systems, maximize resource efficiency, and continue recent progress towards participatory decision-making in China and India. Educational and professional exchanges should also be stepped up. Additionally, it is urgent that China and India be invited into key international bodies such as the G-8 and the International Energy Agency.

"The rise of China and India is the wake-up call that should prompt people in the United States and around the world to take seriously the need for strong commitments to build sustainable economies," the book concludes. "Viewing this colossal shift in global geopolitics as an opportunity rather than a challenge holds the greatest prospect for ensuring a stable and peaceful twenty-first century."

---

## STATE OF THE WORLD 2006: Notable Trends

### CHINA AND INDIA

- India already has the fourth largest wind power industry (p. 11), while China and India are the third and fourth largest ethanol producers, respectively. (p. 64) Both countries have vast land areas that contain a large dispersed and diverse portfolio of renewable energy sources that are attracting foreign and domestic investment. (p. 11)
- The United States, Europe, Japan, India, and China together claim 75 percent of the Earth's "biocapacity," effectively leaving 25 percent for the rest of the world. (p. 16)
- The average person in China has an ecological footprint of 1.6 global hectares, and, in India, 0.8 global hectares. In contrast, the average person in the United States has an ecological footprint of 9.7 hectares, and that footprint grew by 21 percent between 1992 and 2002. (p. 17)

### THE GLOBAL MEAT INDUSTRY

- Worldwide, an estimated 258 million tons of meat were produced in 2004, up 2 percent over 2003. Global meat production has increased more than fivefold since 1950 and more than doubled since the 1970s. (p. 25)
- Meat consumption is rising fastest in the developing world, where the average person now consumes nearly 30 kilograms a year. In industrial countries, the average person consumes about 80 kilograms of meat a year. (p. 25)
- Factory farming is now the fastest growing means of animal production in the world. Industrial systems today generate 74 percent of the world's poultry products, 50 percent of all pork, 43 percent of beef, and 68 percent of eggs. (p. 26)

### FRESHWATER ECOSYSTEMS

- Worldwide, half or more of the land in nearly one-third of 106 primary watersheds has been converted to agriculture or urban-industrial uses. (p. 43)
- To support the diets of the additional 1.7 billion people expected to join the human population by 2030 at today's average dietary water consumption would require 2,040 cubic kilometers of water per year—as much as the annual flow of 24 Nile Rivers. (p. 51)

### BIOFUELS

- Ethanol and biodiesel together provided 2 percent of global transportation fuels in 2004. Global production of ethanol has more than doubled since 2000, while production of biodiesel has expanded nearly threefold. Oil production has increased only 7 percent since 2000. (p. 61)
- Only about 10 percent of the biofuels produced around the world is sold internationally, and Brazil accounts for approximately half of this. (p. 73)
- The world could theoretically harvest enough biomass to satisfy the total anticipated global demand for transportation fuels by 2050. (p. 74)
- The biggest producers—Brazil, the U.S., the European Union, and China—all plan to more than double their biofuels production within the next 15 years. (p. 74)

### NANOTECHNOLOGY

- The value of commercial products incorporating nanotechnology is expected to reach \$2.6 trillion (15 percent of global manufacturing output) by 2014—10 times biotech and as large as the combined informatics and telecom industries. (p. 79)
- More than 720 products containing unregulated and unlabeled nanoscale particles are commercially available, with

---

thousands more in the pipeline (p. 83), while the effects of manufactured nanoscale particles on human health and the environment remain unknown and unpredictable. (p. 79)

#### MERCURY'S GLOBAL REACH

- Coal combustion may provide as much as two-thirds of the 2,000+ recognized tons of annual anthropogenic emissions of mercury to the atmosphere. (p. 99)
- Eighty percent of the mercury used globally is in developing countries, particularly in East Asia, with 1,032 tons, and South Asia, with 634 tons. China and India remain responsible for an estimated 50 percent of global mercury demand. (p. 106)

#### NATURAL DISASTERS

- Overall, economic losses from natural disasters in 2004 totaled \$145 billion, with two-thirds of this attributed to windstorms and the other one-third to geological events, including the tsunami in South Asia. (p. 118)
- A disproportionate number of the world's poor lie on the frontline of exposure to disasters: countries with low human development account for 53 percent of recorded deaths from disasters even though they are home to only 11 percent of the people exposed to natural hazards worldwide. (p. 121)

#### TRADE AND SUSTAINABLE DEVELOPMENT

- OECD countries support their farmers to the tune of over \$300 billion per year, and much of that ends up encouraging overuse of chemical inputs and cultivation on unsuitable land. (p. 145)
- The end of 2005 will see nearly 300 regional trade agreements in force. Most of these agreements, where they are between developing countries, contain few or no environmental provisions. (p. 149)

#### GREEN CIVIL SOCIETY IN CHINA

- The Tenth Five-Year Plan was China's "greenest" ever, with investments to meet environmental objectives set at \$85 billion. These targets were nearly met. (p. 153)
- There are now at least 2,000 registered independent environmental NGOs in China, and more than 200 university green groups are found throughout the provinces. (p. 157)

#### TRANSFORMING CORPORATIONS

- Today there are more than 69,000 transnational corporations, maintaining more than 690,000 foreign affiliates. (p. 172)
- In 2004, investors filed 327 resolutions regarding social or environmental issues with U.S. companies—22 percent more than in the previous year. They subsequently withdrew 81 of these after companies agreed to address the issues raised, ranging from animal welfare and climate change to political contributions and global labor standards. (p. 181)

—END—

[contact us](#) | [sign up for e-mail updates](#) | [join us](#) | [sitemap](#) | [privacy policy](#) | [terms of use](#)

© 2008 Worldwatch Institute | 1776 Massachusetts Ave., NW | Washington, DC 20036 | Phone: (202) 452-1999