

Arctic... even warmer

By: Piero C. and Rhone R.

Scientists have been estimating past temperatures from cores in the Greenland ice cap, pollen layers in ancient lakes, and tree ring coring. These records indicate that the current temperature is the highest it has been in 400 years. As in Antarctica, the greatest temperature changes occur during the winter months, which are as much as 6° C warmer than they were 30 years ago.

Relying in part on recently declassified nuclear submarine

sonar measurements of the Arctic Ocean permanent sea ice, scientists believe that since 1974 it has thinned from 9 feet to 6 feet and shrunk in area by 14 percent. Over flight radar and laser measurements by NASA also found that many of Greenland's outlet glaciers are thinning and discharging into the Atlantic Ocean more rapidly. These changes may influence annual weather cycles and an

interconnected set of deep ocean "conveyors" that drive the Gulf Stream and other currents.

A rise in Arctic temperatures may sound like good news for some farmers and residents of northern latitudes, but overall its effects are ominous. Forest fires and insect attacks are plaguing the boreal forests that ring the



Melting Ice Caps in the Arctic – A source of natural freshwater

Arctic, cover 11 percent of the planet's surface and comprise one third of the world's forests. At the same time, the boreal forest and its associated shrub population are starting to migrate north, overtaking the native

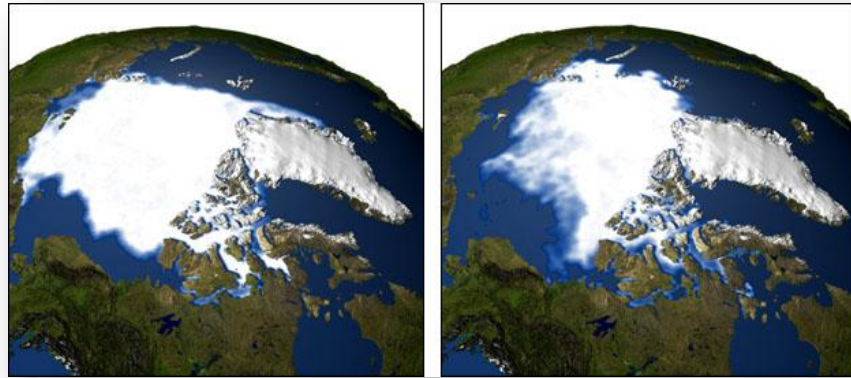
tundra. Glaciers in Alaska and elsewhere are shrinking, and at the same time snowfall over much of the Arctic is increasing. Permafrost is freezing less often in winter and thus thawing more deeply in summer, damaging forests and manmade structures and allowing rivers to erode vast areas along the Arctic Ocean shore.

These drastic changes are affecting native species - and the people who call the Arctic their home. Polar bears cannot reach their dining spots or their prey. Caribou's habitual feeding locations are changing.

Researchers can now measure changed and earlier growth of tundra plants. Native Alaskans have reported adverse shifts in ice and in the permafrost underlying their

communities. Perhaps most threatening, dying forests and thawing permafrost are beginning to pump a huge flux of carbon dioxide into the atmosphere in a region that once served as a carbon absorber. This feedback loop could combine with increased open Arctic Ocean waters to escalate the rate of change. These drastic changes are affecting native species - and the people who call the Arctic their home. Polar bears cannot reach their dining spots or their prey. Caribou's habitual feeding locations are changing. Researchers can now measure changed and earlier growth of tundra plants. Native Alaskans have reported adverse shifts in ice and in the permafrost underlying their communities. Perhaps most threatening, dying forests and thawing permafrost are beginning to pump a huge flux of carbon dioxide into the atmosphere in a region that once served as a carbon absorber. This

feedback loop could combine with increased open Arctic Ocean waters to escalate the rate of change.



Arctic Ice is gradually decreasing throughout time!

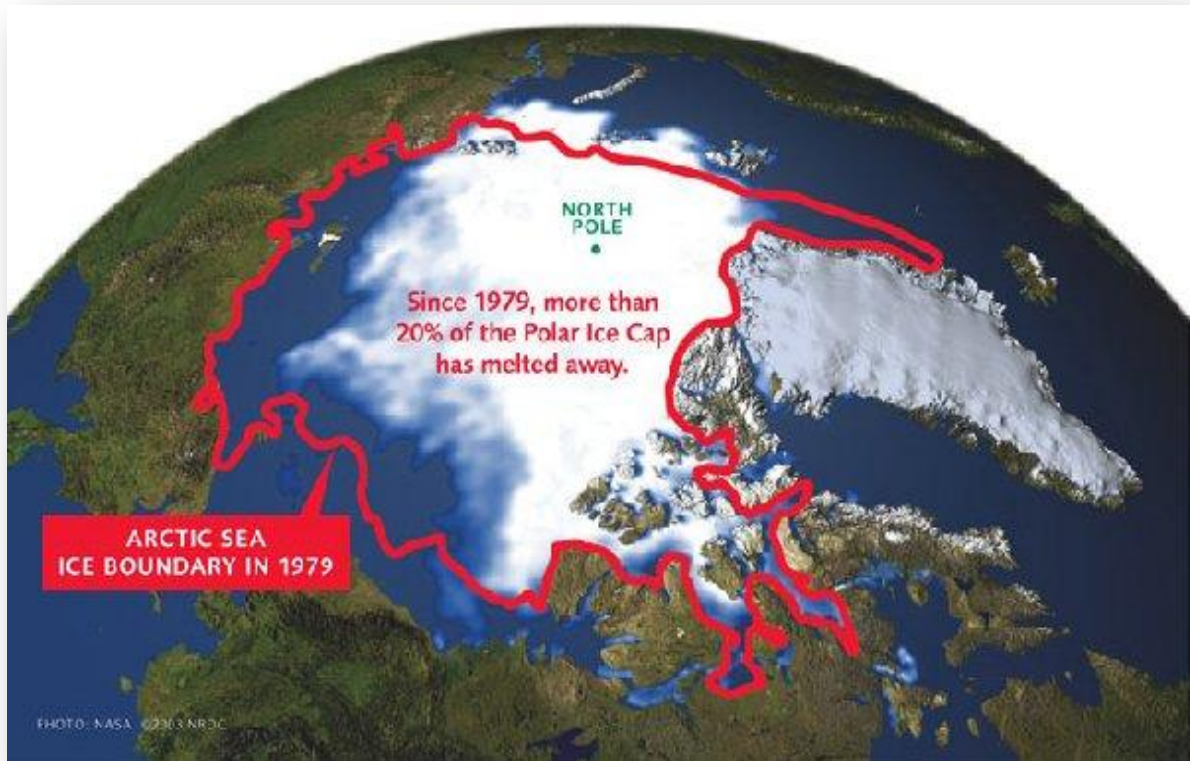
Global warming is causing the Arctic ice-cap to melt at such an unprecedented rate that by the summer of 2070 it may have no ice at all, according to the most comprehensive study carried out on global climate change in the region.

The icecap has shrunk by 15% to 20% in the past 30 years and the trend is set to accelerate, with the Arctic warming almost twice as fast as the rest of the planet, due to a build-up of heat-trapping gases. The findings support the broad scientific consensus that global warming is caused mainly by rising atmospheric greenhouse gases as a result of emissions from cars, factories and power plants.

The listing of polar bears as threatened under the U.S. endangered species act (ESA) was

announced by Dirk Kempthorne, Interior Secretary, on May 14, 2008. The official reason was loss of Arctic sea ice and predictions that the ice will continue to decrease. Although global warming is scientifically linked to loss of Arctic sea ice, the government did not mention it as the reason for the listing considering asking courts to rule on the government position on

ESA and global warming limits. The reduction of the permanent Arctic sea ice by 14 percent since the 1970s is causing not only feeding and breeding difficulties, but also drowning and apparent cannibalism among bears. Government scientists have predicted rapid declines of bears in all but the most northern of the range.



The Overcrowding Outbreak in China, & the One-Child Policy

by Nicole Fracassi & Itasha Spann

China has one of the oldest continuous civilizations, consisting of states and cultures dating back more than six millennia. It has the longest continuously used written language system, and its culture has been extended across East Asia and adopted by neighbours such as Japan, Korea and Vietnam. But lately China's been very overcrowded and it has been a great problem. There are just too many people resulting in the country being poor. Too many people, thus fewer resources available and the government is not able to provide enough food to those people who have no job.

Due to the epidemic, the Chinese government introduced the One-Child Policy in 1979 to alleviate the environmental problems of China. The policy is controversial both within and outside China, but nonetheless a survey undertaken by the Pew Research Center showed that over 75% of the Chinese population supports the policy. It promotes couples having only one child in rural and urban areas. However, parents with multiple births are charged a fine, might be denied bonuses at their workplace, and are only given the same benefits as parents of one child. In rural areas the policies are lifted a bit by allowing parents to have two

children if the first child is female or disabled, and are subject to birth spacing usually around 3 or 4 years. Some provinces and cities have exceptions such as Beijing, permitting parents to have two children only, instead of just one. Henan province, with a population of about 100 million, does not allow this.

Due to this policy established, the overall fertility rate of China has dropped since 1979. The steepest drop in fertility was in the 1970's before the policy was implemented. This is due to the fact that population policies and campaigns have been ongoing in China since the 1950's. During the 1970s, a campaign of 'One is good, two is okay and three is too many' was promoted.

In total, China estimates that it has 300 – 400 million fewer people today with the one-child policy. Some studies have shown it has remarkable effects on China, and some say the policy has a

great negative effect on China. The reduction in the fertility rate and thus population growth has reduced the problems that come with overpopulations, like epidemics, slums, overwhelmed social services (such as health, education, law enforcement), and strain on the ecosystem from abuse of fertile land and production of high volumes of waste. However, even with the one-child

policy in place, China still has one million more births than deaths every five weeks. In addition, there are still six hundred million people in China



"If I have one child only, it will be raised better. It will have more opportunities, and my career is the most important thing, I really want to excel at it."

-Lu Zhufeng, a 20 year old Chinese medical student

living on less than two dollars a day. In 1988, *Zeng Yi* and Professor *T. Paul Schultz*, of Yale University discussed the effect transformation to Chinese fertility extremely weakened family planning in the 1980's.

The focus of the policy controlling population in China helps provide a better health service for women and reduction in the risks of death and injury involved with pregnancy. Help is provided for pregnant women to closely monitor their health, and in some places in China, the government has introduced a 'Care for Girls' program trying to eliminate cultural discrimination against girls. The savings rate has increased since the policy has been in effect. The average Chinese household expends fewer resources, both in terms of time and money, on children, which gives many Chinese more money to invest with and since young Chinese can no longer rely on children to care for them in their old age, they save more money for the future. The intent of the policy was to reduce the demand of natural resources, maintaining a steady labour rate, reducing unemployment, and reducing the rate of exploitation. It was also intended to reduce someone's ecological footprint. Generally, when a country's economy grows, so does the country's ecological footprint. The policy decreased China's eco-footprint and thus reduced strain on environmental resources.



"Vigilantes abduct pregnant women on the streets and haul them off, sometimes handcuffed, to abortion clinics. Some aborted babies cry when they are born."

- Steve Mosher, author of "Broken Earth"

The One-Child Policy has been criticized by human rights advocacy groups, Western religious groups including evangelical Christians, as well as pro-life advocates. The criticism tends to be focused on social problems caused by the policy, and also on the use of sex-selective abortion resulting in highly skewed male-female ratios at birth. Some believe that less intrusive options could have had the same results over an extended period of time and that this policy is not needed. It's been said that some of these options were known but not fully considered. Another criticism suggests that the reduction in the total fertility rate has been too dramatic due to this policy. But many have observed that this policy could only be partially responsible for the decrease in fertility rate because of the fact that its most dramatic drop in the rate was before this policy, in the 1970's.

Between 1970 and 1979, the voluntary "*Late, Long, Few*" policy, which called for later childbearing, greater spacing between children, and fewer children, had already resulted in a drop

in the total fertility rate and after the one-child policy was introduced there was a more gradual fall in the rate. Researchers noted that China could have expected a continued reduction in its fertility rate just from economic development, if it had kept to the previous policy of *Late, Long, Few*. The one-child policy is challenged in over violating basic human rights. Reported abuses in its

enforcement include bribery, coercion or manipulation, forced sterilization, forced abortion, and possibly infanticide, with most reports coming from rural areas. A 2001 report exposed in Guangdong had a quota of 20,000 abortions and sterilizations in China because of a headline in a daily telegraph on May 8th, 2001. Earlier reports also show that women as far along as 8.5 months pregnant were forced to have abortions. There have also been reports where women, in their 9th month of pregnancy or who were already in labour or immediately after birth, had their fetus killed in the birth canal. Stephen Moore, of the Cato Institute, announced that the One-Child policy is an ongoing genocide. He argued that free market capitalism will solve the overpopulation and overconsumption problems of developing nations just like China.



In 2002, China outlawed the use of physical force to make a woman submit to an abortion or sterilization, but it is not entirely enforced. Many local governments still demand abortions if the pregnancy violates local regulations. The one-child policy also affected the rate at which parents abandon undesirable children, and many live in state-sponsored orphanages, from which thousands are adopted internationally. Adoption rates climbed dramatically, increasing to the U.S. alone from about 200 in 1992 to more than 7,900 in 2005. A majority of children who went through formal adoption in China in the later 1980s were girls. It is unknown how common infanticide is in China, though government officials state that it is "rare". There are accounts of parents killing their female infants in remote and rural areas due to many

reasons like not being able to support all their children, parents not wanting to be looked down on or laughed at because woman who do not give birth to a boy may be considered "bad" at birthing, and also the wife wanting to prevent their husbands from marrying other women. In the summer of 2006, new documents came to light indicating that Chinese nationals with children born outside of China will be treated the same as Chinese nationals born in China. Before this law, if you were born outside of China, or on seas, the policy did not apply to you. The policy is still in effect in China right now. Some statistics saying it helps, some making you believe it's completely wrong and inhuman but in conclusion, each year the population rate has STILL gone up.