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World resources running out

Prof says religion of growth will doom us

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For the Colorado Daily

For the 800th time, physics Professor Al Bartlett taught a roomful of listeners simple arithmetic to illustrate the characteristics and dangers of growth in a world of shrinking resources.

Calling growth the national religion, Bartlett said confusion about the subject has led to serious depletion of non-renewable resources and complacency about the 1.7 percent yearly growth in world population.

Just a small rate of population growth can have remarkable effect within ever one life time, he said.

Using Boulder as an example, Bartlett said that in 70 years, with a growth rate of 5.6 percent, Boulder would become very much like Chicago is today. With a growth rate of 6.8 percent, Boulder would become in that time the size of New York City.

"Everything we regard as good in this society makes the rate of growth worse," Bartlett said. Motherhood, advances in science and medicine, peace, scientific agriculture, even the 55 m.p.h. speed limit, all increase the rate of growth and the speed with which people use up resources.

Conversely, the things many deem bad — such as smoking, war, crime, disease and contraception — all decrease the rate of growth and spell hope for future resources. The challenge is determining what "good" to give up to control growth and preserve the future of life on Earth, Bartlett said.

"Zero population growth is going to happen. People can't live at that density on Earth," Bartlett said.

To avert disaster, he suggests people conserve and recycle, and halt the massive export of U.S. coal to foreign countries. Americans must explore harnessing nuclear fusion, come to a better understanding of the problems of nuclear fission and further develop solar energy, he said.

The professor criticized scientists, politicians and journalists for making misleading and overly optimistic statements about growth. Some have "not done their homework," he said, but others believe science can cure or invent anything.

He disputed many experts' claims that steady growth can continue with finite resources, using fossil fuels as an example.

At the 5 percent coal extraction rate proposed by the Carter administration, all known coal reserves would have been used up in 74 to 100 years. At an 11 percent extraction rate, proposed by the Ford administration, those reserves would be used up in 44 to 57 years.

Recent major discoveries of oil sources in Mexico are little comfort to Bartlett, who believes that with the current rate of growth and consumption new discoveries of oil will never offset the demands future generations will create.

At present consumption, Bartlett said, major discoveries would have to be made every 15 months to avoid total depletion of oil reserves. People have used up more than half of the recoverable oil on Earth, he added.

The fact that half or more of the world's fossil fuels is still available should not be reassuring, he said. Because consumption increases exponentially with growth, a reserve that previously would have been adequate for years becomes enough for only a very short time.

"But there is reason for optimism," Bartlett said. Our rate of consumption and growth are finally leveling off, and with a growing understanding of the problem, a solution may be found."