Date of completion: 15 September 2009

The End of Abundance: Will It Bring Resource Wars or Sharing?*

John Cairns, Jr.
Department of Biological Sciences, Virginia Polytechnic Institute and State University,
Blacksburg, Virginia 24061, USA

When industrial civilization began, the global human population was small and widely scattered. Forests and other natural resources were abundant and relatively easy to obtain. Naturally, humans used the resources that were most easily acquired. In some places, petroleum was readily accessible on the surface (e.g., Pennsylvania, USA). However, limitations on resources are increasing at present – humankind is simply running out of everything at a dangerous rate (Grantham 2009). For example, the largest oil discovery in the Gulf of Mexico for the last 20 years will keep automobile engines running for a mere 41 days; 30 tons of ore once produced a ton of copper – now 500 tons of ore are needed (Grantham 2009). Common commodities such as water (1,000 tons are needed to produce 1 ton or corn) are necessary for a variety of activities and are becoming increasingly scarce.

Friedman (2009) states the problem succinctly: "We're trying to deal with a whole array of integrated problems – climate change, energy, biodiversity loss, poverty alleviation and the need to grow enough food to feed the planet separately. The poverty fighters resent the climate-change folks; climate folks hold summits without reference to biodiversity; the food advocates resist the biodiversity protectors."   Humankind persists in attempting to address the crises individually, but this approach is not working. The biosphere (nature) is a seamless, interactive system and must be viewed from a holistic perspective. The recent attempt of the US Congress to produce an effective climate change bill is a perfect example of this battle between holism and special interests. Civilization as presently known will probably not survive a 3°C global temperature increase. However, attempts to limit anthropogenic greenhouse gas emissions are met with fierce resistance by special interest lobbyists. Even an increase of less than 2°C has had adverse effects on food production in nations widely separated geographically – Argentina, Australia, and Kenya.

Some biologists (Palmer and Pringle 2009) disagree with the idea that integration of solutions is the answer to all problems: "You can't integrate a bull with a china shop. In the 1960s and 70s, environmentalists learned what politicians have always known: people hate being told that they can't always get what they want." This statement is true, but at times when individuals can see for themselves the situation and the objective, they can approve a stalwart procedure – for example, Prime Minister Winston Churchill told his nation that it could only look forward to blood, toil, tears, and sweat (Cairns 2009) in his famous speech at the outset of World War II. The present crises need a respected leader who is unafraid of the truth – no small task, and one that will be shunned by most politicians. Humankind needs courageous leaders who are aware that the cornucopian era is over. "Plenty" disappeared with the decrease in cheap, abundant gas, excess food, and the belief in "more" always being available.

LITERATURE CITED

Cairns, J., Jr. 2009. Blood, toil, tears, and sweat. *Asian Journal of Experimental Sciences* 23(3):7-17.
Friedman, T. L. 2009. Connecting nature's dots. New York Times 23Aug
    http://www.nytimes.com/2009/08/23/opinion/23friedman.html.
Grantham, J. 2009. Initial report: running out of resources. GMAO quarterly Letter July
    http://www.gmo.com/websitecontent/JGLetter_ALL_2Q09.pdf.
Palmer, T. and R. Pringle. 2009. Reading lion tracks: *New York Times'* Friedman on vacation in the bush.
    Huffington Post 24Aug http://www.huffingtonpost.com/todd-palmer-and-rob-pringle/reading-lion-tracks-new-y_b_267031.html.