Date of completion: 20 October 2009

## Globalize or Perish\*

\*This posting is a simultaneous submission for "Climate Change and You: Putting a Face on Global Warming," EcoRes Forum Online E-Conference #3, October 19-29, 2009. Further information available at <a href="https://www.eco-res.org">www.eco-res.org</a>.

The issues of global climate change, overpopulation, ecological overshoot, species extinction, and resource depletion are interlocking and interactive. Failure to solve any one of them could mean the end of civilization as presently known. Greenhouse gas emissions must be reduced, which will require maximum participation by all nations.

Reducing overpopulation will benefit from individual action, but a call for such action has not reduced the population size to fit Earth's carrying capacity. Exponential population growth simply cannot continue on a finite planet.

Ecological overshoot is using more resources than Earth can regenerate. In 2009, Overshoot Day occurred in September. For the rest of this year, humankind will be depleting natural capital, which provides the ecosystem services upon which humankind depends for survival. Humankind's survival also depends upon the biosphere, which includes all Earth's species.

Five great extinctions have already occurred and have reduced the number of species to as low as 5% of the original total. However, life is resilient and eventually diversity was restored, although the biosphere did not resemble the predisturbance condition. Earth is now in the sixth great extinction. Clearly, remediation action is needed now!

All living species require resources, and all species are subject to limits to growth (i.e., carrying capacity). Usually one resource (e.g., water) is limiting.

While half the population of humans is living well, the other half is not. Starvation, malnutrition, disease, and death are the penalties. They are unattractive but are the inevitable result of inadequate resources. Should humankind see how many people can be packed on the planet or how many can be fed at an optimal level? Most people would select feeding all at the optimal level, but human practices are leading more to just a subsistence level living for many people.

The economy is a subset of the biosphere because the resources come from the biosphere to run the economy. Economic growth has caused problems in the areas of overpopulation, ecological overshoot, species extinction, and resource depletion.

A wide variety of reactions have been developed to avoid responding to these problems: "I don't want to hear about that!" or "I didn't do it" or I'm only one person, what can I do?" or "No catastrophes will occur in my lifetime." Everyone on Earth caused the problems, and the people who caused the problems should do something about them! Some people may have caused fewer problems than others, but, when catastrophes occur, all will suffer. No one can say "Your end of the boat is sinking!" because everyone is in the same boat and will have a common fate if a catastrophe occurs. So what is humankind waiting for?