

## THE ROAD TRAVELLED

Our hunter-gatherer ancestors increased their population to levels that in places there was scarcity of abundant plants and game animals. Some intensified their migrations, others stayed in place domesticating animals and cultivating plants. For the first time it made sense to own land. Many anthropologists think that agriculture was not a better way of life, but was necessary to accommodate increasing populations.

Larger populations created new scarcities, especially of land and energy. The Industrial Revolution began in England with the substitution of abundant coal for vanishing trees. Labor concentrated around mines and mills, eventually elevating technology and commerce above religion and ethics in human society. Machines, not land became the central means of production. Feudalism gave way to capitalism. People were taught to constantly think in terms of money – finding a profit in the market. As wants multiplied and markets became more scattered, the bond between humans and the rest of nature was reduced to the barest instrumentalism. Instrumentalism is the doctrine that “use” determines the value of everything; it is the economics of pragmatism.

The incredible productivity and burgeoning population that the Industrial Revolution generated has now created its own scarcity. Not only of game animals, not only of land, not only of fuels and metals, but of the total carrying capacity of the global environment. Yes, the carrying capacity of our planet is an endangered commodity. The Sustainability Revolution will arise from the visions, insights, experiments, and actions of billions of people scattered all over our world (Meadows *et al.*, 2004).

In complex systems, information is the key to transformation. Not more, but relevant, compelling, powerful, timely and accurate information. As each of us is painfully aware, systems strongly resist changes in their information flows, especially in their rules and goals. Someone once said that if you want to understand something, just try to change it.

Everywhere there are folks who care about the earth, about other people, and about the welfare of their children and grandchildren. They recognize the human misery and the environmental degradation around them, and they question whether policies that promote more growth along the same old lines can make things better (Meadows *et al.*, 2004). But there is hope. Values provide meaning, and it is meaning that drives action, so we need to get our basic values right. A study by the United Nations University concluded that the major shared moral