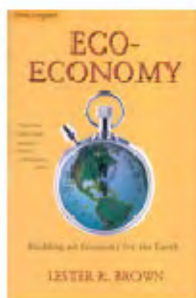


further aggravated by their antiquity (at least 5 years old in 2002).

I must confess that I did not find this small book gripping enough to finish in one go, which should have been possible in view of its small size. Nevertheless, the essays and the accompanying commentaries are useful to the scientific community as well as to others in understanding what human cloning is and what it may imply for the human society, if it ever becomes feasible.

S. C. LAKHOTIA

*Department of Zoology,
Banaras Hindu University,
Varanasi 221 005, India
e-mail: lakhotia@bhu.ac.in*



Eco-Economy. Lester R. Brown. Orient Longman Private Limited, Hyderabad. 2001. 333 pp.

Following World War II, the nuclear peril was considered to be the most serious threat to human security. This prompted Bertrand Russel and Albert Einstein to issue in 1955 their now-famous manifesto, where they described the options before humankind in the following words:

‘There lies before us, if we choose, continual progress in happiness, knowledge and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels? We appeal, as human beings, to human beings: Remember your humanity, and forget the rest. If you can do so, the way lies open to a new Paradise; if you cannot, there lies before you the risk of universal death.’

The above words are even more relevant today. Although the nuclear peril still persists, anthropogenic damage to

the environment leading to shrinking forests, eroding soils, deteriorating rangelands, expanding deserts, rising carbon dioxide levels, falling water-tables, increasing temperatures, collapsing fisheries, rising sea level, melting glaciers, dying coral reefs and vanishing species, is now clearly the greatest threat to a sustainable human future. The central message of this book is the following:

‘Just as recognition that the earth was not the Centre of the solar system set the stage for advances in astronomy, physics and related sciences, so will recognition that the economy is not the centre of our world create the conditions to sustain economic progress and improve the human condition. Citing numerous examples, Lester Brown brings out clearly that the rise and fall of civilizations is related to the management of environmental capital stocks. He then poses the question, ‘how do we achieve sustainable economic transformation, when all decision makers – whether political leaders, corporate planners, investment bankers or individual consumers – are guided by market signals, not the principles of ecological sustainability?’ The answer to this challenge lies in achieving a paradigm shift to an eco-economy.

If we do not change course, the prospects for the future are alarming. The world population will increase by another 3.2 billion by 2050 and most of this addition will take place in countries already facing acute water scarcity. Compounding this dangerous situation is the prospect for adverse changes in precipitation and temperature as a result of growing imbalance between carbon emissions and absorption. The severest impact of the damage to basic life-support systems will be on poor nations and the poor in all nations. For example, a 1-metre rise in sea level will reduce rice production in Bangladesh by half. A temperature rise of less than 1 degree Celsius in sea surface water can lead to the death of coral reefs and associated fisheries. The book provides extensive data to show that if current trends in environmental damage continue, the future of human security is really bleak.

What should we do to reverse the trend and launch our spaceship earth on the path of security and sustainability? Lester Brown outlines an agenda for ensuring that the concept of sustainable development gets translated into prac-

tice. If the first part of this book is in the nature of ‘doom ecology’, the second part indicates the components of a ‘do ecology’.

The opportunities now available for adopting environment-friendly technologies in the area of energy, transportation, water conservation and use, agriculture and industry are described in detail. Many of the eco-friendly technologies lend themselves for decentralized adoption. The merits of eco-friendly animal husbandry are shown, taking the Indian Dairy Industry as an example. India is now the world leader in milk production. However, India’s dairy industry is largely based on the use of agricultural residues as feed and not grains. This is because of the ability of ruminating animals to digest cellulose. Also, over 50 million women owning 1 or 2 cows or buffaloes are able to provide over 80 million tonnes of milk. This is an example of the technology of production by masses, in contrast to the mass production technologies adopted in industrialized countries.

The book indicates the uncommon opportunities now available for eco-jobs and eco-entrepreneurship. Hereafter, good ecology will be good business and it is hence in the long-term interests of industry that they adopt environmentally benign technologies. Ecotechnologies provide a win-win situation for all.

To summarize, this is a timely book in the context of the ‘doom’ atmosphere now prevailing in the environmental horizon, partly due to the attitude of the present US administration towards internationally agreed agreements like the climate and biodiversity conventions. This book should be read widely, particularly by scientists and policy makers. It will be appropriate to conclude with the final paragraph of the book. ‘There is no middle path. Do we join together to build an economy that is sustainable? Or do we stay with our environmentally unsustainable economy until it declines? It is not a goal that can be compromised. One way or another, the choice will be made by our generation. But it will affect life on earth for all generations to come’.

M. S. SWAMINATHAN

*M.S. Swaminathan Research Foundation,
3rd Cross Street,
Taramani Institutional Area,
Chennai 600 113, India
e-mail: msswami@mssrf.res.in*