Book reviews

THE REVENGE OF GAIA—WHY THE EARTH IS FIGHTING BACK AND HOW WE CAN STILL SAVE HUMANITY

J. Lovelock. Allen Lane, 2006. ISBN 978 0 713 99914 3, £16.99, 176 pp.

COLLAPSE—HOW SOCIETIES CHOOSE TO FAIL OR SURVIVE

J. Diamond. Allen Lane, 2005. ISBN 978 0 140 27951 1, £9.99, 574 pp.

These are two important books that everyone should read, particularly those with a leading role in society, whether it is in business, politics or academia. Each book stands on its own merits and brings forward powerful arguments to change the approach we have to growth and development. They are a clarion call for change but, as each book makes clear, it is not at all simple to decide what should be done or how best to achieve it.

The Revenge of Gaia is written by James Lovelock, famous as a prominent environmental scientist and for proposing the Gaia hypothesis. This hypothesis is that the planet self-regulates its climate and chemistry through a feed-back mechanism of life itself. This is now a generally accepted explanation for planetary temperature stability. It also explains the warming and cooling that has occurred over geological time spans.

His book details the temperature changes that have occurred over the past few hundred years, the reasons for these changes and what we can expect in the next century. His predictions are that our hot, arid, zones will expand and our polar regions reduce. The net effect will be that our ability to produce food and sustain the population of the planet will dramatically decline. At first sight this appears to be a doomsday scenario but Lovelock does not argue that all is lost for the earth. Instead he suggests that life will be dramatically different. It may be life, as the catchphrase has it, but not as we know it.

Headlines aside, the real value of this book is not in its predictions for the future. It is in its detailed descriptions of the mechanisms by which global warming occurs and the technologies that we can use to stop or reduce greenhouse effects. Some of his arguments have already created a furore in environmental circles: that wind power is a blind alley and instead we should develop nuclear power. These views are controversial but should not detract from his main message and arguments. These are that the industrialised and developing nations cannot continue as we have in the past: using fossil fuels with abandon and destroying forest cover.

Collapse by Jared Diamond has a different approach to that of James Lovelock. Instead of making predictions of what may happen he writes about what has happened. This book is an exhaustively detailed study of many societies that have collapsed during the past millennia and the reasons why this occurred. The reasons are many and Diamond lists 12 in total but a frequent cause is the consequences of climate change. This can either be through a localised, short-term event such as the Pacific El Niño reversals or a long-term event such as the small ice age in Europe during the 15th century.

Important and fascinating as these studies are, they are not the most important message in the book. The real power of *Collapse* is described in its sub-title 'How societies choose to fail or survive'. Diamond argues that every society makes choices about how it provides for itself. Sometimes society makes good choices and survives, but on occasions bad choices are made and hence society collapses with all of the misery that brings in its wake. In this final respect Diamond spares no-one the barbarities that have ensued when civil war, population crash and finally extinction have occurred.

Many descriptions are given of societies that existed in similar geographical locations and similar periods of time. Some of these societies survived while others collapsed. Diamond makes clear these societies did not make arbitrary decisions in a vacuum. Generally, the evidence of how successful they were at managing climatic changes existed all around them. Those that survived recognised their situation and adapted appropriately. Those that collapsed ignored the signs and adopted counterproductive behaviours. Diamond argues that the bad decisions were always made by ruling elites who had more interest in their own sectional power and prestige than in the health and livelihood of the remainder of their people.

Both Lovelock and Diamond make clear that while choices have to be made it is not necessarily obvious which are the 'good' and which are the 'bad' decisions. The task now facing everyone on the planet is to observe and debate the evidence around us. In the final analysis the real importance of these books lies in what everyone is inspired to do having read them.

The foreword to *The Revenge of Gaia* is written by Sir Crispin Tickell. He says 'the first requirement is to recognise that the problems exist. The second is to understand and draw the right conclusions. The third is to do something about them. Today we are somewhere between stages one and two'.

I. JENKINSON