

# A Renewable World

## A Report for the World Future Council

Herbert Girardet and Miguel Mendonca, Green Books, Dartington, September 2009

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This is a time for bold thinking about building a new, positive and sustainable relationship between people and planet. Never before has humanity been on a collision course with its own future to the extent we are today. The World Future Council set out to be a voice of future generations at a time when so much of what we do is simply concerned with the here and now.

*A Renewable World* aims to show how the quadruple crisis facing humanity – of climate, energy, finance and poverty – can be regarded as a unique opportunity for building a green recovery and for decarbonising the global economy. It is a book for those who want to influence the decisions on how we can turn visions into practicality, and the steps that are needed to achieve this outcome.

Specifically, it deals with –

- **accelerating the *renewable* energy revolution,**
- **creating green jobs and *renewing* local economies,**
- ***renewing* human settlements in an urbanising world,**
- **biosphere protection and *renewal*,**
- ***renewing* the world's agricultural soils, and**
- ***renewing* and invigorating international cooperation.**

A few books and reports have given some indication about *what* can be done to get to grips with the existential problems we are facing, but very little has been written about *how*. This book is all about the key steps needed to make a global green recovery happen.

Recent climate research indicates that, after decades of inaction, the challenge now facing us is not just to reduce annual global *emissions* of greenhouse gases, but to reduce their actual *concentrations* in the atmosphere. The book outlines this can be achieved whilst simultaneously enhancing the livelihoods of billions of people. It shows how best policies and best practices can, if amplified by international cooperation, bring about a green recovery.

For hundreds of thousands of years relatively small numbers of humans led a relatively modest existence on Planet Earth, using only the renewable energy income available from plant growth, and the power of sun, wind and water for their sustenance. The tools they used for harvesting renewable energy and for supplying their necessities were limited in scope.

The industrial revolution gave humanity the tools to start exploiting the rich stores of fossil fuels that had accumulated in the earth's crust over a period of some 300 million years. As a result, human power, human numbers, and the damaging impacts of human activities, grew exponentially. In recent years the privileged existence of a small global minority has been copied worldwide. The key question that we now need to answer is how humanity, vast in number as never before, and amplified by a huge array of new technologies, can live up to its huge responsibilities to future generations and to other forms of life.

We have dramatically increased our discharge of greenhouse gases into the atmosphere whilst simultaneously reducing the capacity of the biosphere to absorb these gases – through deforestation, erosion and depletion of carbon-rich soil by unsustainable farming methods,

and by acidification of the oceans. Only about half of our annual emissions of some 10 million tonnes of carbon are currently being reabsorbed by the biosphere. The book aims to show how this dangerous situation be reversed through appropriate policies of energy sufficiency, whilst assuring forest protection and reforestation, as well as soil restoration.

Enhancing the carbon content of soil will require tremendous efforts by farmers and rural communities which will require major changes in farming practices. However, impressive initiatives are already under way in both developed and developing countries. But to take existing initiatives further will require a great deal of international support.

The transition to a carbon conserving economy is not only vital for climate protection and human security, but will deliver many and varied employment opportunities for all levels of society. This brings environmental protection into the daily lives of many more people than is currently the case. If a society has a large percentage of the population connected to environmentally friendly products and services directly through jobs, then the popular mandate necessary for passing effective environmental legislation, and spurring positive behavioural change, is easier to achieve. The greening of existing jobs and the creation of many new green jobs is already becoming a reality.

One of the key questions the book seeks to answer is whether the world's energy needs can be met entirely from renewable energy. It would be a tremendously exciting prospect to live in a world in which we are no longer tempted to start international conflicts to secure oil and gas supplies and in which we can switch on a low-voltage light or drive an electric car without being complicit in warming the planet. A world in which future generations won't depend on electricity supplies from nuclear and coal-fired power plants now seems possible.

Ever since the Earth Summit in Rio de Janeiro in 1992, sustainable development has been endlessly discussed as the key concept for creating a viable future for humanity on a finite planet. The fact is that in reality not very much has happened. And there is a simple reason for this: Development as we currently know it is fossil fuel dependent. All over the world industrial and urban development has been driven by a steady increase in the burning of fossil fuels – plus the utilisation of other problematic energy sources, such as nuclear power and large-scale hydroelectric power. So far only minimal efforts have been made to power development by renewable energy systems instead.

It is crucial to find ways of making money work for a 'carbon-proof' world. There is now much evidence that a combination of feed-in tariffs, green taxes, local trade and exchange, green consumerism and conscious investing by pension funds can redirect very large amounts of money towards creating a sustainable world.

Realising the opportunities inherent in the climate crisis – and its environmental, economic and social consequences – is set to become the greatest challenge for human security in the 21st century and a tremendous opportunity. There has been much new research and much recent publicity about the huge problems facing us, but plausible proposals on how to deal with these are, so far, woefully inadequate. A few reports have given some indication about what can actually done to get to grips with climate change, but very little has so far been written about how the necessary changes can be brought about. *A Renewable World* is intended to fill this gap.

Some commentators say that it is too late to 'turn the ship around', that we are inevitably headed for the rocks on which the great ship we call home will falter. It is true that we are currently living off the earth's natural capital and that we are, therefore, living off borrowed time. But the growing realisation of this is also become a spur for action and this is the primary task of this book: To try and prove that we live in *a renewable world*, but that it is up to us, to all of us, to make it a reality.

Herbert Girardet, 28-9-09