

# Introduction

When I started writing this book several years ago, my intention was to produce a relatively easily read book that would guide the reader through our quest for energy and what it has done to us, to our planet. It was necessary to introduce some basic physics and chemistry, which I have gone to great lengths to make as understandable as possible, for I believe that one of the reasons we are in the situation we find ourselves today is lack of knowledge. How can a relatively intelligent person understand what is happening around him without first having some knowledge of his surroundings and how they affect him and he affect them? As I have said to my children through their formative years and into their adulthood, knowledge alone is a dangerous thing, without the intelligence to interpret that information and understand how it applies to you and your life. Knowledge and intelligence go hand in hand.

I still remember, when I was about seven years old, in Burnside, Rutherglen, just outside of Glasgow, walking down High Burnside Road and seeing this huge, blue sun. Blue sun, not a blue moon. These things happen once in a blue moon, but this was a blue sun. And it was huge. Much bigger than the sun normally would have been. I wasn't scared, I was curious, but it wasn't until many years later that I finally found the answer - that a cloud of gas from Colville's Steel Mills in Motherwell had passed between me and the sun, causing a distortion in the light, making the sun look both bigger and blue. As I remember, it wasn't a very momentous occasion, but it did instil an insatiable curiosity in me to find out everything I could, about everything. I never took things for granted. I never accepted without question explanations from grown ups. I also took to reading ravenously any books, but especially books on science - chemistry, physics, astronomy, geology, biology etc., and I became well known for breaking off a meal, should an argument arise, to go and find a book to verify my side of the argument!

Too many people today have access to information without having that

knowledge-intelligence combination needed to make sense of that information to their own benefit or to understand what it is they are doing to this planet. A housewife steps into the kitchen and switches on the stove to cook dinner. She never questions where the gas or electricity came from to provide her with that facility, nor does she worry, or even understand that she is contributing to the global atmospheric heating that is causing so much concern. But if you tell her that two billion people around the world are doing exactly the same thing as her, she surely has the intelligence to begin to understand how big an impact that could have on our global temperature.

If you open your refrigerator, you never pause for a second to marvel at what an ingenious piece of machinery it is, or to wonder where all the food produce within it came from. But just imagine a billion people, a billion refrigerators, all full of food - how did we get there, where did it come from? I doubt if there are many of you, reading this book, who can comprehend even what a million looks like, let alone a billion. I know I have difficulty with it. Carl Sagan, a very famous scientist and author, claimed that he never used the term 'billions of billions' on a Johnny Carson Show, as it was incomprehensible and far too vague a number for the human mind to comprehend but he eventually surrendered to the need to use such numbers, in what turned out to be his last book of an illustrious career in science and writing, 'Billions and Billions'. I recommend you find it, and read it. Just taking a few comments from his book, there are 60 seconds in one minute, and a million seconds in 12 days. A billion, is 1000 times that, 12,000 days or 32.8 years! So, in these terms, six billion people are equal to 197 years if each one represented one second. Each one needs to be fed, each one needs energy. Where is it going to come from?

As this book progressed, as I delved deeper and deeper into the ever

changing conditions in which we live, I began to realise that the situation is not getting any better, that it is in fact getting considerably worse. A report, started in 2001 at the initiative of the UN and involving some 2000 authors, reviewers and researchers around the globe who contributed their knowledge, creativity, time and enthusiasm, was launched in early 2005 — the Millennium Ecosystem Assessment. While it shows a real attempt at understanding what we are doing to this planet and hopefully will get the governments of the world to act together to try and stem the destruction of our home, it is the people of the world, people like you and I, who need to act, to act decisively, to try and prevent the utter destruction of the human race.

We are a product of this planet. We have an inbuilt belief that the planet will look after us, will care for us. I hope, as you read through this book, that I can dispel that belief and get you to understand that your survival, your children's and your children's children's survival depends a great deal on what you do tomorrow, and every day for the rest of your life.

In this book I pull no punches. Some people will ridicule the book. They will say "...he doesn't know what he is talking about". My response to these people is to ask them, "...do you have the time to wait and see?" Take a look around you. We have enough historical data to know that things are changing, changing dramatically. Every day the News confirms what I'm trying to put across - power shortages, Government concerns about the future, higher costs, etc.

The greatest misfortune of the planet is that we evolved into an intelligent race of creatures. But there was so much we did not understand! There was so many things to be afraid of because lack of understanding brings fear. We discovered religion. Religion became the panacea for all things not understood — the sun, fire, death — we created a God, or gods to take responsibility for all these things. But religion also brought with it power,

the power of control, the power of fear. Man was created in the image of God, so how could he do any wrong? Our lives were controlled by religion, not by our own intelligence. We knew nothing beyond our own small gathering, a gathering that was controlled by religion.

And therein lies the biggest hurdle to our survival as a human race. So long as we continue to believe that we have a God-given right to this planet and its resources, so long as we continue to see ourselves as superior to all other living species, we will continue to dig our own graves. I am not talking about our ability to grow food, provide ourselves with a few creature comforts, I'm talking about our ability to evolve further, to live on this planet as an advanced, intelligent form of life that can go onto greater and higher things — the eradication of poverty, sanitation for everyone, full education for the masses - the list can go on for ever, the things we could do, the things we should be doing, instead of satisfying our own short-term needs. At our present rate of destruction, within less than a thousand years we will be relegated to living in small isolated cities - townships, with no industry worth talking about and probably very little food, save what can be grown in greenhouses. Because that will be the only form of life left to us with the power generation systems we will be able to sustain. Smaller pockets of humanity, with no access to power other than that provided by the Sun, if we can still see it through the pollution, will rapidly die out.

If we leave things unchanged, if we continue to live as we have done for the past century and more, using up our energy heritage as if it were infinite, expanding the global population (10 billion by 2050?) each with his or her own demands on the systems that support us, we will run into a brick wall. In fact, some scientists suggest that we have already reached that brick wall. Having done the amount of research I have for this book, having looked at situations from both sides of the equation I have to agree with those scientists.

That is what this book is about. It is about trying to warn people before it is too late, it is about where this energy trail is leading us. I hope that people will read it with an open mind and get some understanding of this merry-go-round that we are on, for which we only have ourselves to blame. I hope that they will begin to understand the future we are providing for our children, for our grandchildren and unborn generations to come. We don't need nuclear war to destroy the human race - we are doing it already, of our own free will.

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