

A Plague of Human Proportions

I have borrowed for the title a quote by Mark Lynas, a story-teller whose passion is the environment. He once pined Bjorn Lomborg (of The Sceptical Environmentalist) at Bjorn's book launch. I have previously written about the population bubble, and its potential impact on the world. Here I present some more information and issues for us as environmental engineers to mull over, in our journey towards a sustainable planet.

Mark Lynas describes it as "the crisis is this: within the earth's biosphere, a single species has come to dominate virtually all living systems. For the past two centuries, this species has been reproducing at bacterial levels, almost as an infectious plague envelops its host. Three hundred thousand new individuals are added to its numbers every day. Its population of bodies now exceeds by a hundred times the biomass of any large animal species that has ever existed on land since the beginning of geological time. The species is us."

Lynas is emphatic in his description of the likely disaster waiting to happen. He is critical of the US government on its approach to the Kyoto protocol. He provides supporting evidence on why this is the greatest issue humanity has faced in his new book High Tide: News from a Warming World. According to Lynas, we are now in the early-to-middle stages of the sixth mass extinction to hit the planet since complex life began 2.1 billion years ago. Species are disappearing at between 1000 and 10,000 times the natural background rate. A fifth of birds are threatened with extinction, as are 40% of mammals and fish, a third of amphibians and up to half of all planet species.

As environmental engineers we have some responsibilities as well as market opportunities emerging from this impending explosion. For one, we need to help engineer more efficient systems and processes so as to cope with the increasing demand on environmental limits – we need to integrate the concept of eco-efficiency in all aspects of engineering. We also need to contribute to the debate on population – we need to help politicians and decision-makers understand that population growth, whilst directly linked to economic growth, may not necessarily always have a positive impact on economy, especially when limits are stretched.

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