

The Weather Makers

The history and future impact of climate change

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Flannery is an Australian zoologist and ecologist, not a climatologist. His formative experiences typically includes hiking up the alpine meadows of New Guinea and exploring the wet rainforests of north east Australia. His point of view is biodiversity and his vision that of self-regulating ecological systems, including Lovelocks Gaia hypothesis, whose emergent fragility is no match to human greed. His book may be short on heroes, but it is filled with villains at the end. Any book on environmental lithanies is bound to be depressing, and his is no exception, although as most such books it ends on an upbeat note with suggestions of what to do, and referring to glimmers of hopes.

As noted he is no climatologist, and his expertise on such matters is thus second hand. Thus he is apt to throw statistical material undigested at you and fail to present a really coherent technical picture. A serious book addressing climatology needs at least some simple mathematical formulas, but his ambition lies elsewhere. His lack of technical expertise may irritate the serious reader, but his enthusiasm and urgency, wins out on the end. He does manage to touch many issues left alone by drier accounts, and does get most of the things right. It is a book with an obvious mission, Al Gores 'An uncomfortable truth' packaged in the kind of book which no doubt soon will be available paperbacked with raised titles in most airport lounges, avidly read by travellers busy ejecting even more greenhouse gases into the overheating atmosphere.

Once again the main thing any reader wants to know is why is Global Warming such a bad thing, especially when it seems to entail such marginal increases in average temperatures, dwarfed by seasonal variations, yes even daily such. As Flannery points out, had it been a case of Global Cooling, people may have been far more upset, because after all most people in the Western World seek to migrate towards the tropics, not the poles. The spectacle of an Ice Age is fresh in the imagination of the public, but not that of a coming hot summer. For the climatologically more informed, the fact that in the geological perspective, present levels of carbondioxide (or CO_2 as the author consistently writes) are rather low in a geological perspective, should cause pause for some bewilderment. In fact Flannery makes a rather good job in explaining the issues. What is at stake is not only that the change is so rapid, but also that the geographical possibilities of adjustment and rejuvenation are seriously compromised by fragmentation caused by humans. In fact what is being observed, apart from records of temperatures and rainfalls, is that habitats are moving latitudinally. The movement is seemingly glacial by human standards but the trends are clear, maybe to most people seriously concerned the most tangible evidence of looming disaster. The process is best viewed in marginal circumstances, small islands of rainforests on hilly sides, where a few meters may actually mean life or death for a species on the brink of extinction. Traditionally it has been considered enough to leave

small pockets of undisturbed nature as conservation measures, trying to prevent direct human culling. But as everybody have known for a long time, what dooms wild-life is not so much direct hunting, although this has taken its toll as well, as the degradation and fragmentization of habitat, making it more and more vulnerable. When the climate change, if ever so gently, the habitats will have to move as well. In the past this was normally possible, wilderness was one contiguous entity, allowing migration. Ecological systems depend on many interconnected parts which must move in tandem. Given enough time, such lateral movement is always possible. Of course there is friction, and many species are going extinct in the process, but others may evolve and step in. But we are not living in normal times, human presence has significantly changed the face of the earth, preventing natural processes to proceed unimpeded.

As a zoologist he knows many a case study. Marvellous species, just being discovered before going extinct. In fact in a rather paradoxical way, the recent extinction of species we never even knew of, presents to the sensitive mind a tragedy even worse than those we at least were able to fleetingly document. Indignation grows into outright bathos, when he laments the disappearance of a rare species of frogs, just because people drive their gaz-guzzling SUV's, a connection I am afraid would be met only with scorn by those responsible.

The marvelous bio-diversity of the world is surely one of the wonders of nature and a reason for being alive as good as any else. This bio-diversity has ever since the emergence of complex forms of life been a stable component of the planets history only intermittently interrupted by catastrophic extinctions, out of which life nevertheless has been able to recover fairly quickly, at least in a geological perspective. But such long-term views are not appropriate to what we are experiencing here and now. Extinction is a fast process, evolution notoriously slow. So when species disappear, ecological systems are being replaced by far more primitive and biologically poorer, far less conducive to satisfy the needs of man. There is a difference between a rainforest and a desert, at least to us. Ultimately the irony is that it is only with the emergence of man that the intricacies of nature can be fully appreciated, but in order to be so, it is not enough that mans innate intelligence and imagination come to play, but also the technology, which are the fruits of those very characteristics. The technology which by its very development jeopardizes what it allows to be so exquisitely sensed.

There is nowadays much concern about terrorism and the threat it poses to civilization. This particulat fear concerns the Muslim, fundamentalist variety, the ostensible source of which is religious indignation against the ungodliness of western materialistic society. This indignation and alienation, which is pictured as perverse, shares in fact roots with a rather common malaise, diagnosed by Freud as civilized mans discontent with the very civilization that nourishes him, and without which he would be helpless. On the other hand it ties in with the very basics of survival, that paradoxically in order to preserve civilization we need to destroy it. From an environmental point of view, the mindless profligacy in which the precious resources of nature are being squandered, the relentless degradation of diversity, ought to be as strong an incitement to take arms against a godless society, as ever fundamentalist Islam may be able to provide. How come there are no environmental

terrorists¹? How come that the destruction of the rainforests are being tolerated, that no suicidal bombers attack logging operations, making those into dangerous and costly endeavours? How come planes are not being blown into smithens in order to discourage people to fly and pollute the atmosphere with its gases? Innocent people will die, that is true, but on the other hand if the future of mankind is at stake, is this not quite a reasonable cost, in particular when compared to the costs in innocent lives governments are willing to take for far more frivolous ends. Truman was perfectly willing to sacrifice hundred of thousands of innocent beings, just in order to expedite the crushing of an already vanquished enemy. It is not difficult to find even more egregious examples of innocents being sacrificed. All those people engaged in environmental litanies, are they not really serious? is it just some kind of attitude, some following of fashion, some ritual to assuage guilt?

Flannery never brings up the spectre of terrorism. His indignation is not allowed to pursue such paths. Instead he offers rather homegrown advice. No drastic measures need to be taken, apparently, it is just enough to marginally shave off the worst excesses of your lifestyle. Turn down the thermostat. Change your electricity provider to a green one. Install solar panels and become independant of large companies. It all seems so idyllic. True one should never disparage the accumulation of many small things, they usually add up to much more, than a few drastic measures, especially if sustained. Yet as an antidote to the scenarios he has been painting in his book, the remedies he presents seem too rosy, too naive, too parochial, more appropriate to a rather thin, if vocal segment of the western world. Environmentally conscious individuals of solid prosperity, knowledgable, resourceful and manually not impeded. If the world will not be able to support all its people, it may end up supporting only a small fraction. The genocides of the past will pale before the spectre of an elite taking charge and seeing to their own best interest, leaving everybody else in the wake. Immoral? Morality is a luxury you need to jettison when survival is at stake.

Books of this kind make you fatalistic. In spite of the up-beat advice provided, you know deep down that you cannot do much about it, save hoping for some disaster to stave off the even larger disaster around the corner. You have been scraping by for your entire life, and in fact, on a personal level, life has always been plentiful to you, and prospects as well as expectations, indicate that it will continue to be so. We are all prisoners of habits, and we are satisfied with their continued existence, hoping for the best, or at least enjoying it while it lasts. The kind of necessary steps that need to be taken, may only be affected by authorian regimes that cut down the freedom of consumption drastically. Such regimes have existed in the past, they still exist, and the future may favour them more than anything else, because what are the alternatives?

That somehow the dynamism of human activity can be channeled through voluntary choices into environmentally profitable furrows, through gently political pushing and extensive education. Wishful thinking indeed, but what is the alternative?

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¹ Greenpeace is the closest you can get, and as far as terrorism is concerned, it is a rather mild variety