

If Tomorrow Never Comes: R&D III – Ignoring the Greenhouse

Much of the carbon lobby suggests that it would be less expensive and more humane to do nothing about reducing global warming - simply switch to coal (of which we have plenty) and adapt to the changes that would come.

Obviously I don't favor this approach, but I thought I'd be helpful to the other side, and put forward some specific proposals.

To start with in an unmitigated planet greenhouse you would have weather more than climate. It would tend to be much warmer on average, but would still get frosts and snowstorms unpredictably – some of them in places you currently don't get snow. You would get more droughts in dry climate, more floods in wet places (with an occasional switch just to keep things interesting). Insects would flourish on a warmer planet and pests of all types would migrate. And of course storms would be worse than at present, and the average wind speed would be significantly higher. This has interesting implications for agriculture. Finding crops that are simultaneously drought and flood resistant, adapted to high temperatures, but able to survive low temperatures, and that are usable by humans as sources of complete protein and moderately concentrated carbohydrates (comparable to grain or roots) makes for a fascinating challenge.

One possibility is to learn how to grow most of our crops indoors. Some parts of Scandinavia grow a large part of their fruits and vegetables in glass houses, but I don't know if any nation has ever tried to raise a significant amount of its grain and animals that way. For at least half a century, there have been proposals for geodesic and inflatable domes miles in diameter, but no one could ever come up with a good enough reason to build one; ignore global warming long enough and we may get one. I'm sure the people of this country won't mind having a quarter of it domed over. At any rate if we really intend to do nothing towards prevention, we need to investigate more seriously the cheapest way to deploy this well-known technology, and the cheapest way to climate condition these farm bubbles. We can research means to improve our hydroponics technology too, since hydroponics minimizes water consumption.

In case this fails, an alternative possibility is leaf protein. With a centrifuge you can extract protein from just about any kind of leaf on any kind plant. So we could simply plant "farms" with whatever kind of biomass we can get to grow and use wind powered centrifuges to extract the protein which we would then treat and store. Currently leaf protein is extremely expensive compared to meat; we need a way to bring the price down.

Also leaf protein is currently extracted from crops planted for just this purpose. An outdoor “farm” adapted to a greenhouse climate would consist of mixed plants. These would not be separate rows or beds or even in the more complex arrangements we find in permaculture and biointensive gardening. This would be a variety of species completely mixed; suitable for differing climates. The idea is that some varieties would flourish and others fail depending on what the weather that year was suited to grow. Any wild volunteers would be welcomed; in a planet greenhouse farm there would be no such thing as a weed.

Now leaf protein is already expensive compared to animal protein, since it requires more extensive processing than normal vegetable protein. Extracting the protein from mixed leaves of a semi-random variety will require some additional research.

If eating leaves does not appeal, there are other possibilities. Blue green algae – (spirulina) is both a protein and a carbohydrate source that can be produced in a wide variety of climates while requiring less water than conventional agriculture. It is still fairly expensive compared to normal animal and vegetable protein sources, and would require more research to bring those costs down.

There is one possible protein source that will actually increase on planet greenhouse – insects. We even know how to prepare them; there are organizations devoted to insect eating already in existence that have developed extensive recipes; some are reputed to be quite tasty. The trick here is harvesting. Most technology we have for dealing with insects involves killing or discouraging them. We need to learn how to capture them unpoisoned in large lots, if we really intend to live on unmitigated planet greenhouse. Possibly worms would be easier to do this with than flying insects; and snails are already well known as a gourmet treat. So that is good news for people who don’t want to live on leaves and pond-scum; we can eat bugs instead.

Ah, but there is one other thing we should consider. What if the same people who oppose doing anything to prevent the worst effects of global warming from happening don’t want to spend the money to learn to live with it? What a surprise that would be! Well there is still one area they would still desperately need to research.

If nothing is done to prevent the worst global warming, and no serious research is made in adapting to it, then you will eventually have the world food supply cut by at least one half, probably three quarters and possibly 90%. Of course the industrial infrastructure will also be seriously impacted. The remaining people will be pretty busy improvising adaptations without a lot of preparation via prior research. So you will not have a lot of people available with free time to dispose of the dead – no more than one per thousand corpses, probably as few as one per ten thousand corpses.

Now this will be a serious health hazard to the living, (presumably those who favor doing nothing to prevent global warming). In that case we need to develop techniques whereby one person may find and permanently dispose of a thousand or more widely scattered corpses per day unassisted. This may bring up thoughts of Soylent Green, but large scale exo-cannibalism is not actually a practical disposal method. Cannibalism tends to produce all sorts of exotic diseases to begin with. But eating corpses that have died of natural causes, especially when they are not fresh would be an extremely unsafe alternative. Because this is addressed to the carbon lobby, mentioning these practical considerations is important. I've never seen signs of ethical standards that would rule out their eating human flesh.

I do hope those who oppose mitigation of the global warming, and support simply adapting to it, find these suggestions helpful.