

## anonymous anonymous

How will this Smelter affect the environment and all other living things there?

There are not just one cause that will affect the environment, but two will. First the Smelter will act as a catalyst for change, along with the climate that will have a synergistic effect on the climate as a whole. The effects of the smelter alone will create a kind of trophic cascade to the ecosystems by weakening the vegetation, which in turn will become infested with insects and other plant diseases. Next the fires that are becoming increasingly more intense and lasting much longer, a process known as exponential drying, which in turn will lead to flooding and soil erosion, along with nutrient and organic loading. Now this can lead to algal blooms which will deplete the oxygen and cause an anoxic condition which will kill everything in the rivers and ponds involved in the effected areas. I mentioned exponential for a reason, once the intensity of fires let's say in the amazon increase, according to a news release in the amazon stating that the southern amazon has become flammable. When an event like this happens, the forest will continue to dry out. When this begins to occur eventually the convective cycle known as the biotic pump will break down. The biotic pump refers to transpiration occurring in the forest. When that cycle breaks down the forest begins to further dry and thus weakens the Hadley cell which in turn effects the Northern Latitudes. This will cause further cooling and drought in the north latitudes. This brings me to the famous quote that the late professor Albert Bartlett has stated over and over. **THE GREATEST SHORT-COMING OF THE HUMAN RACE IS OUR INABILITY TO UNDERSTAND THE EXPONENTIAL FUNCTION!** To understand the magnitude of change in this calculation is to consider the driver of it. In this case it is the Global Average Temperature. As it increases so too does the level of catastrophe increase also, at each step! So the rate of change is the factor that will increase the magnitude of change in the environment up there. The non-linear function is also involved in contaminants. An example of this is methylated mercury which was found in the blood stream of the song birds in the Appalachian Mountains. This is an example of Biological Magnification. The increasing concentration of toxic substances within each successive link in the food chain. As you can see it is non-linear! Many scientist today are leaving out important data simply because they cannot model the non-linear function. The IPCC Is known to do this in other areas as well unfortunately! These changes are not here yet, but sometime in the near future if people do not change there ways in adjusting to these changes, such as this Smelter for example. By locating it a Desert where there is less of an Impact on the Environment, and people and property, we could help lessen the affects on our planets demise!