# BILL MCKIBBEN, EAARTH

In *Eaarth: making a life on a tough new planet* (253pp., Times Books, 2010) Bill McKibben never argues about the causes of global warming. Instead he notes its effects – droughts, floods, increasingly violent storms, plagues of insects and diseases. Cumulatively, he argues, they've changed our familiar Earth dramatically enough to warrant giving it a new name, Eaarth, where all six billion of us, along with animals and plants, now live, for better or worse.

First McKibben describes the new planet, then suggests how we might live on it, "lightly, carefully, gracefully," to preserve as much quality as possible.

In 2008 both the Northwest and Northeast passages opened for the first time in human history. In 2009 lightning caused tundra fires in the arctic for the first time ever. The tropics have expanded 8.5 million square miles since 1980, pushing dry subtropics ahead of them, so drought is now the norm in half of Australia, the American Southwest and wheat belts in China and around the world. Melting glaciers on the Tibetan plateau mean drastically reduced water for farmers across Asia – to say nothing of the effect of melting glaciers in our own Rocky Mountains.

In recent year's tornadoes, hurricanes and cyclones have increased in frequency and destructiveness, as have forest fires and diseases such as Dengue fever, for which we have no vaccine – this last thanks to a mosquito which thrives in warmer temperatures.

Among the effects of violent weather extremes are population displacement, increased violence, and hunger

caused by crop shortages – in 2009 a billion of us were hungry.

Whatever the cause, natural cycles or human activity, global warming on Eaarth now has a life of its own, out of control. Melting at the poles means less white to reflect the sun's heat back into the atmosphere, so they melt even faster. Warming peat bogs, which sequester about half as much CO2 as the atmosphere, now release possibly as much as all humans combined. It's humans against chemistry and physics – and they don't negotiate. "We don't know how to re-freeze the arctic or regrow a rain forest."

So how shall we live on our new planet? Growth may be the one habit we absolutely have to shake, terrifying as that may be, since at present "any cessation of growth equals misery." For most of history, society was small, nature large; in a few decades we've reversed that. Between 1990 and 2005 retail space per person in the U.S. doubled – a reminder that we can't take modernity as "normal." We've been "giddy, high on oil." We've had one big national project after another – settle the continent, crisscross it with roads, get to the moon. Now that we have no such project, big is no longer appropriate, and we need to start shrinking – carefully.

Our mantra should.be, "slow, small and local." Both the World Bank and the USDA admit that small farms can produce more per acre than giant agribusinesses – and do it sustainably. In Africa, Asia and the U.S. low-input, small, diversified farms are increasing. There's enough land around U.S. suburbs to grow 50% of their food. McKibben

estimates that half of the states could meet all, and several more could meet some, of their energy needs internally.

So he thinks we'll be all right on Eaarth, that we can feed ourselves, keep warm. The internet may keep us amused, and perhaps keep us from losing hard-won human tolerance in the new small towns.

I fervently hope he's right. Rather than being children around a smashed *piñata,* each gathering as many goodies as possible, may we instead together seek the Eaarthwide cooperation we so desperately need.