Energy justice is an unfamiliar concept to most people, but it addresses a crucial problem. A new book by Lakshman Guruswamy addresses some of the key facts: About a third of the world's population — between 2 and 2.5 billion people — primarily rely on household burning of wood, coal, or other materials like dung for cooking. The price they pay is great, he tells us: "indoor air pollution that is presently responsible for millions of premature deaths . . . due to pulmonary diseases — primarily among women and children — caused by the indoor use of wood and other biomass in open fires for cooking and heating."

Besides its health dangers, these primitive energy sources also contribute substantially to global warming. According to UNEP:

> "Household cooking and heating are major sources of some of the most significant contributors to global climate change including carbon dioxide, methane, black carbon (BC), and other short-lived climate pollutants (SLCPs). Black carbon, which results from incomplete combustion, is estimated to contribute the equivalent of 25 to 50% of carbon dioxide warming globally, and residential solid fuel burning accounts for 25% of global black carbon emissions, about 84% of which is from households in developing countries. In South Asia, for example, more than half of black carbon comes from the use of inefficient cookstoves."

Some recent research indicates that black carbon may be the second biggest source of warming next to CO2.

Steps have been taken to address the problem, but progress has been slow. Seneghal has made an effort to move people from cooking fires to liquified petroleum gas, which was initially quite successful but then petered out when subsidies for gas use were ended. A World Bank report addresses options for restoring progress, including more use of renewable fuels, and Guruswamy provides model laws that some countries might want to consider. As the World Bank's interest in the subject illustrates, the problem has received attention from around the world. For instance, the Global Village Energy Partnership has reached about seven million people, primarily in Africa. There is also a very active Global Alliance for Clean Cookstoves. Progress is not easy. Besides the general difficulty of working in very poor countries, often in rural areas, it can be difficult to design affordable cookstoves that mesh with local food preferences and food preparation practices, and repair and upkeep of cookstoves can be difficult.

The ultimate solution is to life people out of poverty, but this too is difficult without adequate energy supplies. Mini-grids and solar power may be an answer in many places. Unfortunately, much of the world's population growth is projected to take place in the very countries that suffer most from energy poverty. As difficult as the problem is, it is crucial that we ramp up our efforts to address it.