

in making electoral decisions but also in discussing things with their kids.”

The cynics among us would argue that bringing this idea to fruition requires the optimism of an Eagle Scout. (Could the protocol of such debates guard against politicians’ habits of cherry-picking scientific facts at their own convenience? Would the public be willing to educate themselves enough to actually follow the content of the debates?) Yet the assumption that a well-informed people will act in its country’s best interest is fundamental to the ideals of Jeffersonian democracy. The solutions Otto suggests require a great deal of dedication and optimism. Nonetheless, the problems he identifies are quite real. *Fool Me Twice* offers a compelling consideration of the United States’ political estrangement from science. One would very much like to attend to Otto’s equally compelling hopes.

#### References

1. <http://shawnotto.com/neorenaissance/>.

10.1126/science.1212889

## FILM: ENVIRONMENT

### The Underlying Issue

This year, the global population passed the seven billion mark. By the year 2045, the world is expected to host nine billion human beings. Let me repeat that: nine billion. In the 1960s, heightened concern over the “population explosion” prompted a global focus on Earth’s ability to sustain the rapidly increasing human population. Since that time, the number of people on the planet has nearly doubled, but, oddly, concern over the impact of the ever-increasing human population seems to have faded from the public’s attention. When the size of the human population is mentioned these days, it is most often in the context of wondering how we will feed so many. One rarely hears other important concerns surrounding the continuing increase in our numbers—such as whether our resource use will permit the survival of other species, whether essential resources (for example, clean water) will remain available following the complete anthropogenic alteration of Earth’s systems, and how our focus on consumption and economic growth amplifies human impacts above and beyond our simple requirements

**Mother**  
Caring for 7 Billion  
**Christophe Fauchere, director**  
Tiroir A Films Productions,  
Denver, CO, 2011. 55 minutes.  
[www.motherthefilm.com](http://www.motherthefilm.com)



for survival. Most important, there appears to be a distinct avoidance of identifying the increasing human population as a potential threat to ecosystem stability.

Our choice to avoid discussion of the population issue, however, will not make the problems disappear. Christophe Fauchere’s film *Mother: Caring for 7 Billion* encourages us to reengage, both publicly and personally, with the reality of what our increasing population will bring. In its examination of the history of the population concern and our current level of resource use and consumption, *Mother* does not shy away from arguing that unchecked human population growth is not sustainable. Nor, however, does the film succumb to a fatalistic viewpoint. Instead, Fauchere attempts to inspire change through interviews and stories of individual transformations. A brave Ethiopian woman—

emboldened by a radio show that encourages women to think about family planning and stand up for themselves—leads viewers to see that the empowerment of women across the world could be a first step toward both

limiting population growth and fighting poverty. Other interviews with human rights and population workers in developing countries are similarly convincing and inspiring. These lead one to the hopeful conclusion that as conditions for women improve, so will their ability to manage the size of, and provide better lives for, their families.

I had hoped for an equally inspiring tale about how to tackle other aspects of the human population problem, those of consumption and an overwhelming focus on economic growth in developed countries.

Here, however, the challenges are greater, and the film leaves us without concrete solutions. Fauchere marshals interviews with ecologists, economists, and sociologists to convincingly argue that developed economies are based on consumption and, further, that as developing countries improve their quality of life, they too enter into a consumption economy. All people deserve an equal quality of life, but the unfortunate truth is that Earth cannot sustain a developed-country level of consumption for billions of people. As pointed out in the film, it would take all the resources of 10 Earths to support the current global human population at the consumption level of the United States.

The question of how humanity will equalize living conditions across the globe for a growing population while still maintaining the ecological systems we depend on is monumental and overwhelming. *Mother* does not provide us with answers. Instead, the film suggests that the daunting nature of the solution may explain why we choose to ignore many of the harshest truths about the population problem.

The film compellingly argues that a fair and just solution is likely to only be found in a complete refocusing of our priorities and societies. Specifically, we must value diversity, human and biological, over the gross national product and human solidarity over competition. Although Fauchere does not show us how to get to this point, *Mother* leaves viewers with a ray of hope that humanity has the potential to reach such a state. It will also convince them that to do so we must not be afraid to reengage with the population issue and that the time for such renewed engagement is now.

—Sacha Vignieri

10.1126/science.1214575