



People's Rights Planet's Rights

Holistic Approaches to a Sustainable Population

Suzanne York, Institute for Population Studies, December 2012

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People's Rights, Planet's Rights

Holistic Approaches to a Sustainable Population

Overview

Human population numbers have been fodder for discussion since ancient times. Aristotle, Confucius, Machiavelli and many others expressed concern about increases in population.



New Delhi

In more contemporary times, the Reverend Thomas Malthus predicted that population growth would be checked by world hunger, famine, and malnutrition. However, the Industrial Revolution and the rise of fossil fuels usage proved many of his theories wrong.

More recently, in the late 1960s, Dr. Paul and Anne Ehrlich's *The Population Bomb* echoed similar concerns, though the Green Revolution put off the day of reckoning that Ehrlich feared.

Interestingly, Norman Borlaug, the “father” of the Green Revolution, noted that this effort would only buy humanity a little bit of time.

In his acceptance speech for the Nobel Peace Prize, which he won in 1970, Borlaug said “Most people still fail to comprehend the magnitude and menace of the 'Population Monster'." The New York Times wrote that he was frustrated throughout his life that governments did not do more to tackle population growth by lowering birth rates, and at one point said “If the world population continues to increase at the same rate, we will destroy the species.”

Today the number of humans on Earth number over 7 billion. The *mid-range* United Nations population projection is for 9.3 billion people by 2050. However, just an average of one half

fewer children per woman would reduce that number to 8 billion, with positive effects on health, education, food, water and resource availability.

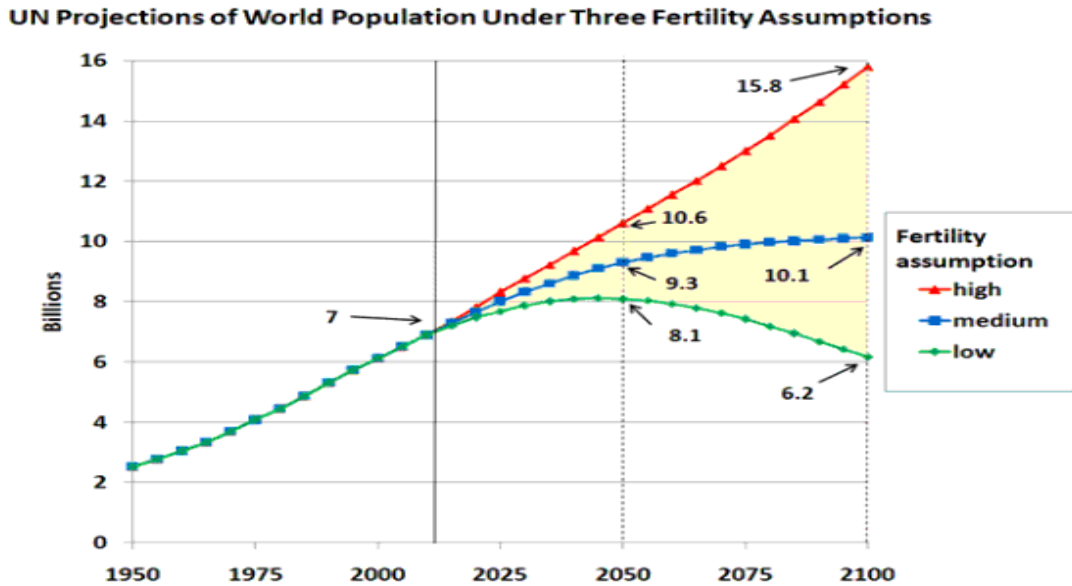


Figure 1: Projected World Population Growth (Source: United Nations)

There are approaches we can take – all grounded in fairness, equality, and rights – that can make a difference in balancing population growth and the health of the planet. It goes beyond numbers and requires a holistic, rights-based approach to talking about population and producing positive changes. Calling it the ‘Population Monster’ or population control won’t direct the conversation where it needs to be.

The bottom line is there will remain billions of people on the planet, barring any major catastrophes, for the rest of this century and far beyond. Finger pointing, denying rights, myopic thinking, and the like will not improve lives or the environment. Global society is confronted by a range of serious ecological, economic, and social issues that require a systemic and holistic path. We are all in this together; let’s take an inclusive approach, look closely at how lives may be improved, and put the political and moral will behind doing so.

Why this report

While the global rate of population growth has slowed, there are still 80 million people added every year. Africa’s total population is predicted to increase from approximately 1 billion today to 2.2 billion by 2050. Or consider Pakistan, currently the world’s sixth most populated country. The United Nations Population Fund projects that between now and 2050 Pakistan could see a

population increase from 175 million people to 335 million. This growth will have big implications, for example, on food and water security.

And it's not just numbers. In the developed world and emerging economies, it is about consumption, most of it occurring at unprecedented levels and still increasing; unsustainable consumption is a major driver of environmental degradation.

Globally, there could be 8 to 10 billion people by 2050. If the world takes action and positively addresses the impacts of population growth, it could keep that number down to 8 billion people.

Population growth issues are popping up more in the news than they have for some time, yet it's still often treated as a taboo subject, despite the fact that population is connected to so many issues: species extinction, resource scarcity, pollution, social justice, regional conflicts, etc.

The keys to keeping population numbers closer to the low-end projections are promoting women's rights and empowerment, reducing poverty and inequality, curbing unsustainable consumption, rethinking how we define economic growth and living in balance with nature.

The impetus for this report was an invitation to cover a week-long "track" on population at the Aspen Ideas Festival, a annual gathering of experts and people interested in policy and current events. Much of the research incorporated here is also based on conferences I attended in the past year; namely the UN Conference on Sustainable Development in Rio de Janeiro, Brazil (June 2012), also referred to as Rio+20, the International Conference on Degrowth in the Americas, in Montreal, Canada (May 2012) and the Social Capital Conference (Sept. 2012).

The Aspen Institute, especially its Global Health and Development Program, has done excellent work on population, women's rights, and development issues. Its staff is also involved with the social capital/entrepreneurship world, showing ways cross-collaboration and innovation can work. At the Social Capital 2012 conference in San Francisco, Aspen Global Health and Development organized a session on how investment in reproductive health can be a smart, cost-effective strategy for international development, with more work on this to come. This is a smart way to talk about rights and population growth.

This report will cover: the rights of women, youth, and nature, and the need to look at economic growth in a different light.

Population growth should be framed within a rights-based, inclusive, and holistic approach. The history of the issue alone proves why this is so, not to mention the urgency of building and supporting a healthy, equitable, and sustainable world for people and the planet.

Too many of us work in our own spheres. Essentially, we work in “silos” and in turn, we become fragmented in how we think about issues, and end up overlooking the interconnectedness of our topics to which many of us devote our lives. The environment, economies, human development, and rights are all connected. This is an effort to promote greater integration of the most pressing issues facing us today. It is not meant to be comprehensive (each section alone could be a book) and there is certainly more that could be included; the purpose, though, is to get people talking about population issues in a *positive light*, in a way that respects the rights of all people, and the planet.

Aspen, Ideas, and How to Really Talk About Population Growth

(originally published at 6DegreesfPopulation.org)

This was my first time attending the annual Aspen Ideas Festival (AIF), and what a week it was! Suffice it to say, my head still hurts from all the information I took in from some of the country’s top thinkers and doers. From the polarization of U.S. politics to the Supreme Court’s healthcare decision to education, people are genuinely looking for answers and talking about ways to best tackle today’s pressing issues.

The Aspen Institute, especially its Global Health and Development, should be congratulated for including a conference theme called “Our Planet: 7 Billion and Counting”. Putting population issues front and center is rarely done these days, and the fact that AIF devoted a week of sessions to this topic is encouraging for those concerned about the intersection of population growth, the environment, and women’s rights. Peggy Clark, with Aspen Global Health and Development, has an excellent grasp of the issues and brought in some top-notch people to talk about population and women’s rights. This program has done much in the past year to underscore the importance of reproductive health as a human right and a key to sustainable development.



That said, despite best intentions, the population piece was only partially included in most of the sessions. The two best were “The Politics of Sex” and “Sustainability Redux”, of which more can be read about [here](#). And Dennis Dimick, executive editor with *National Geographic*, gave a good overview of the “Population Challenge” session, linking the issues of population growth and resource scarcity, based on the magazine’s recent year-long focus on a world of 7 billion. Encouragingly, he mentioned the importance of educating girls and noted the “Girl Effect”, a video on how supporting girls is a main solution to overcoming social problems.

However, other sessions seemed to miss the point of stabilizing population growth. One session titled “The Role of Business in Addressing the 9 Billion” was a one-on-one talk with Doug McMillon, president and CEO of Walmart International.

Most people who are very concerned about the environment and a planet headed towards 9 billion people by 2050 would probably not expect a Walmart exec to be keynoting such a discussion. While McMillon never said so, it is my belief that Walmart wants very much to reach 9 billion, because to them that represents 9 billion consumers. Companies want to increase profits and customers, not decrease. Even though Walmart understands the impacts of an unsustainable world, especially resource scarcity, they probably don't necessarily equate that with fewer people. They just want to have more shoppers.



Dennis Dimick, Helene D. Gayle, with Joel Achenbach (Photo: Aspen Ideas Festival, <http://www.aspenideas.org/blog/population-challenge>)

The very next day was another one-on-one session, this time with Marvin Odum, the president of Shell Oil in North America. His topic was "The Earth in 2050: The Nexus of Food, Energy and Water". Most of the time was spent talking about Shell's pending drilling for oil off the coast of Alaska. Little was said about population and the human impact on food, energy, and water resources, despite the title.

This is not to say the private sector shouldn't be involved in population growth issues. Its input and innovation is crucial too, and the best solutions will involve all sectors. For AIF, though, a little more balance with grassroots organizations would have been more effective. The voices of those who are "on the ground" working directly with women and their families to improve lives need to be heard. There are amazing women and men working tirelessly to build healthy families, communities, and environments all over the world, in developing and developed countries. Many of them have the ideas and inspiration that more people need to hear. [Blue Ventures](#), [PHE Ethiopia Consortium](#), and [Bangladesh Rural Advancement Committee \(BRAC\)](#) are a few that come to mind.

Given the often pervasive reluctance to address the nexus of population, the environment and reproductive rights, I'm thrilled that the words "seven billion" made it onto the schedule at all. Despite the above concerns, kudos to the Aspen Institute for bringing it into the discussion. Population affects almost everything, as more than one AIF participant told me. People get it, and want to know how to better talk about the issue.

Population, People and the Planet

To argue that there is not population growth is not the right thing to do; whether we are women or people from the south, we know there is rapid population growth.

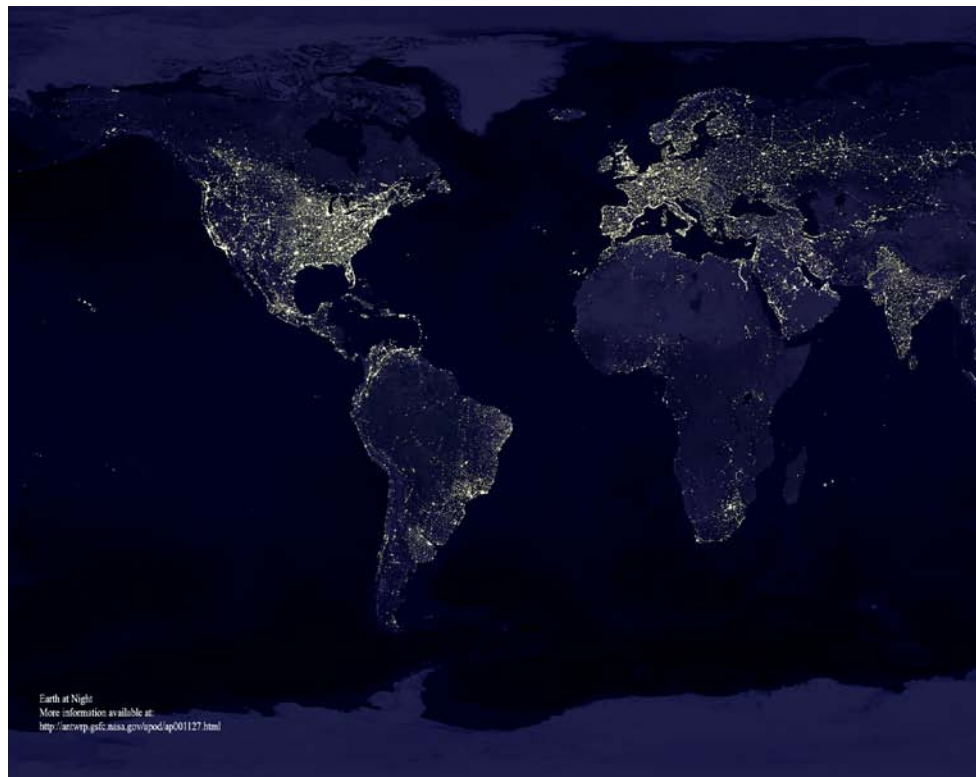
~ Dr. Musimbi Kanyoro, President and CEO of the Global Fund for Women, at Rio+20

The issue of population growth is a complex and often controversial issue. Though it will probably always be this way, a little bit of knowing world history and the big picture can go a long way toward fostering greater understanding.

In recent times, interest and awareness on population issues grew after the publication of Paul Ehrlich's *The Population Bomb* in 1968. People and governments were concerned that their populations were increasing too quickly and that great levels of poverty and hunger would result. Lowering fertility rates became a priority in many countries.

However, some countries, namely India and China, implemented coercive policies as a means to reduce fertility rates, and to sum it up very simply, this gave a negative connotation to population issues for many years thereafter.

It was not until the 1994 International Conference on Population and Development in Cairo that family planning issues



NASA image of Earth at night (photo: nasa.gov)

came back to the forefront and in a more positive light. This time issues were framed around terms like reproductive rights and reproductive health, and moved away from population growth or too much focus on demographics.

Today, family planning and related issues are back in the mix, though the subject of population growth can still be contentious and misunderstood.

The history of colonialism, racism, globalization, oppression, and global inequality cannot be disregarded, and a focus only on numbers and statistics misses the bigger picture.

The Projected 20 Most Populous Countries in 2050:

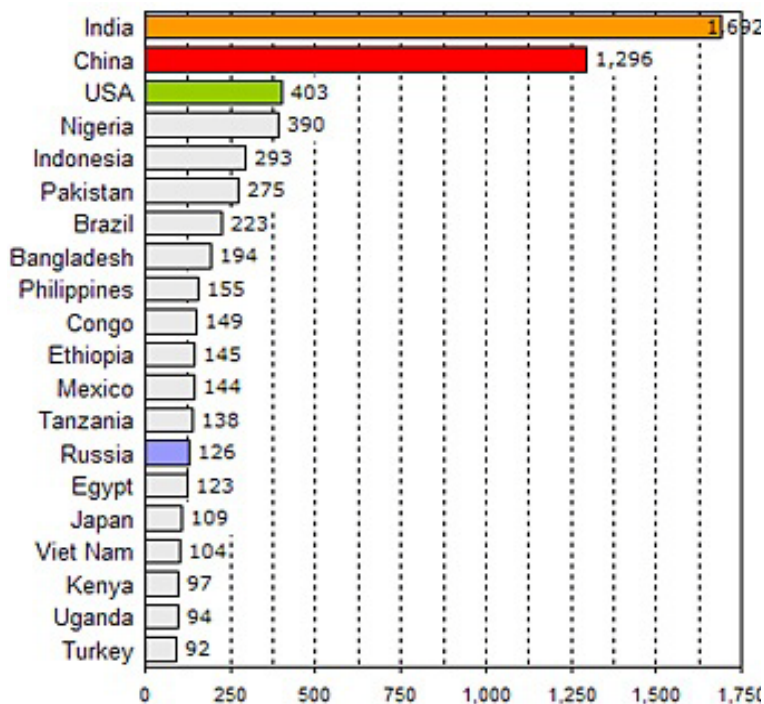


Figure 2 (United Nations, Department of Economic and Social Affairs)

And on the other hand, a focus only on human rights can overlook the needs of the rest of the ecosystem. A stable population of empowered people benefits the world, both people **and** the planet.

This issue isn't black or white, it goes beyond numbers and demographics, and it involves understanding a lot of different topics. Ultimately though, it's about understanding **rights for all** in the face of increasing environmental degradation.

In a world where **an estimated 222 million women in developing countries would like to delay or stop childbearing but are not using any method of contraception**, we need to overcome different viewpoints and remove

obstacles to talking about population growth and its impacts. Lack of access, information, education, poverty, and limited options are some of the main barriers.

At the Aspen Ideas Festival, Christopher Elias of the [Gates Foundation](#) noted that family planning has become unnecessarily controversial and the global community needs to re-establish a consensus that access to contraceptives be non-controversial. This key point was reiterated by speakers at the UN Rio+20 Earth Summit, by notables like Gro Harlem Brundtland (former prime minister of Norway), Timothy Wirth (former U.S. senator), and Mary Robinson (former president of Ireland).

Elias talked of the importance of understanding the three main drivers of population growth:

1. continued high desired fertility by some families and the concurrent need to bring down child mortality;
2. the existing unmet need for access to family planning services - 215 million women (ed. note: now updated to 222 million) in developing countries want access to family planning services but do not have access to contraceptives. "Women should be provided the means to do what they already want to do", said Elias;
3. the largest driver of population growth is population momentum, the natural increase in population in a world where half of the population is under the age of 25 and are either in or will soon reach their peak reproductive years. The global community should focus on education for girls and women, and create opportunities for better livelihoods.

The Guttmacher Institute, in its report *Adding It Up: Costs and Benefits of Contraceptive Services-Estimates for 2012*, found that providing the current level of contraceptive care in the developing world costs \$4 billion a year; fully meeting all need for modern contraceptive methods would cost \$8.1 billion per year.

Guttmacher lists some of the effects of filling the unmet need for contraceptives, including: unintended pregnancies would decline by 2/3rds, from 80 million to 26 million; there would be 21 million fewer unplanned births; and there would be 1.1 million fewer infant deaths.

The world should listen to what women want, for themselves and their families.

Environmental Impacts

Climate change, deforestation, biodiversity loss, ocean acidification, depletion of soil fertility, pollution, depleted fisheries...there is a seemingly endless list of negative environmental impacts. As humans plunder the earth, as our numbers increase, and resource shortages loom, it can easily becoming overwhelming.

It is estimated that all people collectively emit more than 30 billion tons of carbon dioxide each year, though with great disparity among and within countries. Unsurprisingly, Americans emit the highest per capita amounts of carbon dioxide. In 2009, according to the International Energy Agency, the United States alone generated 18 percent of world CO2 emissions (approximately 17 tons per person), despite a population of less than 5 percent of the global total.

China contributed a comparable share of world emissions, 24 percent (approximately 5 tons per person), while accounting for 20 percent of the world population. India, with 17 percent of world population, contributed more than 5 percent of the CO2 emissions, (approximately 1 ton per person). As India and China develop economically and more of their citizens join the middle class, those emission numbers will grow.



Shoppers at a mall in China (Photo: <http://jamesgraemer.wordpress.com/page/2/>)

A report by the consulting firm McKinsey & Company, analyzing the emerging economies such as China, Brazil, Russia, India and the Philippines, projected that one billion people will enter the global consuming class by 2025. McKinsey estimated that consumption in these countries will account for US\$30 trillion by 2025, which will be almost on par with developed countries.

How can we deal with all the critical issues facing the planet if we don't address the impacts of population growth and related issues? Specifically, by prioritizing education, choice, access, awareness and justice. To be successful, civil society groups should build on a framework of justice – social, environmental, and economic. And within that truly confront the consumption and inequity factors (see below). Unsustainable consumption has been acknowledged as a main driver of environmental degradation for decades now, but not much has really been accomplished to overcome it.

The UN report State of the World Population 2009 addressed women and climate change. It emphasized that educating women about reproductive health and providing them access to family planning would do more to reduce greenhouse gas emissions than ending all deforestation.

The environment benefits when women are empowered. When women are in charge of their reproductive rights and are able to make the best choices for themselves and their families, it helps them cope with the unpredictable effects of climate change. Women are on the frontlines, facing at times drastically changing weather patterns. In most countries around the world they are the main providers of food, water, and other resources for their families. Empowered women can better support their families and communities, take care of their local environment, and adapt to climate impacts.

Dr. Gro Harlem Brundtland, former prime minister of Norway and head of the Brundtland Commission, which in the 1980s coined the term sustainable development, emphasized at the Rio+20 conference that “neither reckless consumption or rapid population growth are sustainable, and both deserve our full attention.” Moreover, she said, “the world needs to focus on what women want and need,” namely family planning services and care.

Quick Facts:

Americans trash 40 percent of their food supply every year, valued at about \$165 billion. About half of all land in the U.S. goes to agriculture; some 25 percent of all the freshwater consumed in the U.S., along with 4 percent of the oil, goes into producing food that is never eaten. Uneaten food accounts for 23 percent of all methane emissions in the U.S. (Natural Resources Defense Council)

Poverty and Inequity

Population growth is about much more than mere numbers. The Center for Reproductive Rights states that “The focus on population numbers at the expense of human rights is counter

effective and even harmful to the goals of social and economic development.” If only population numbers are considered, then a huge part of the picture is missing, that of consumption.

The consumption levels of the wealthiest 10 percent of the world's population is putting undue stress on the planet. For the 1.4 billion people, or 21 percent of the global population who live on less than \$1.25 a day, the most pressing issue is poverty.

To put this into perspective, and focusing on numbers again for a moment, consider the following statistics from Oxfam:

- Carbon Emissions – just 11 percent of the global population generate around 50 percent of global carbon emissions, while 50 percent of people generate only 11 percent;
- Incomes – the richest 10 percent of people in the world hold 57 percent of global income, while the poorest 20 percent hold just 2 percent;
- Purchasing Power and Electric Power – high income countries (who are home to 16 percent of the world's population) account for 64 percent of the world's spending on consumer products and use 57 percent of the world's electricity;
- Consumers – the global middle class is expected to grow from under 2 billion consumers today to nearly 5 billion by 2030, with most of that increase occurring in India and China.

In Figure 3, Kate Raworth of Oxfam International created a visual framework for sustainable development, based on the shape of doughnut. It combines the concept of planetary boundaries with the concept of social boundaries. The inner “doughnut” represents an environmentally safe and socially just space – and inclusive – for humanity to thrive in.

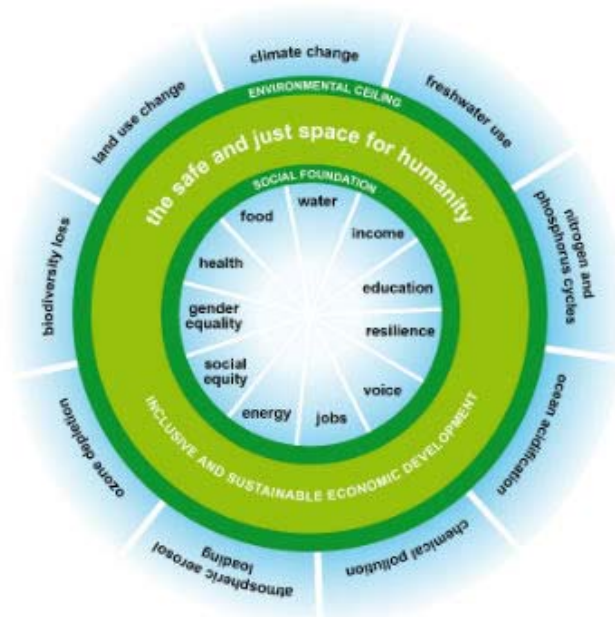


Figure 3: A Safe and Just Space for Humanity to Thrive In – The 11 Dimensions of the Social Foundation and 9 Dimensions of the Environmental Ceiling (Oxfam)

Laurie Mazur, a writer who focuses on population, environment and justice issues, has said that inequality makes it difficult to address and even acknowledge the environmental impact of population growth. Even the UK Royal Society (comprised of scientists drawn from all areas of science, engineering, and medicine) understands this. In its report *People and the Planet*, issued during the run-up to Rio+20, the Royal Society stressed that the following three challenges must be addressed by humanity:

- The world's 1.3 billion poorest people need to be raised out of extreme poverty;
- In the most developed and the emerging economies, unsustainable consumption must be urgently reduced;
- Global population growth needs to be slowed and stabilized, but this should by no means be coercive.

We need to tackle poverty as well as unsustainable consumption. A sustainable balance between people and resources can be achieved by: 1) using resources better; 2) addressing equity/ensuring basic needs are met for all people; 3) choosing a slower growth path.

At the Earth Summit in Rio de Janeiro in June 2012, Eliya Zulu, director of the African Institute for Development Policy and a member of the UK Royal Society, said that “population, consumption, and environment should not be treated as silos. It is not either or, but a combination of everything.”

Resource Limits

One of the reasons it's easy to get caught up in population numbers is because of concern over potential resource shortages. Global demand for natural resources has increased greatly in recent decades. The [European Environment Agency \(EEA\)](#) released its report on consumption and the environment prior to Rio+20. The report acknowledged that the main drivers of demand for resources have been growth in population, wealth and consumption, with high population growth mainly in developing countries and highest levels of wealth and consumption in developed countries.

Although an increasing global population is a factor in rising pressures, it is consumption and production patterns in developed countries, with developing countries catching up rapidly, that are the key drivers of global environmental problems.

Quick Facts:

Fisheries are a critical source of protein for two billion people around the world, yet more than three-quarters of fish stocks are fully or overexploited ([Food & Agriculture Organization](#))

The EEA stated that “Achieving significant reductions in environmental pressures and

impacts will require changing private and public consumption patterns, to supplement gains achieved through better technology and improved production processes.”

Any talk about resource scarcity, consumption, poverty and inequity should factor in the potential impacts of efficiency gains. Increased conservation and more efficient use of existing resources are part of population policies, and are considered to be “low hanging fruit”, or easy actions to undertake. Two key resources that often come up when population growth is mentioned are water and energy.

The Importance of Efficiency Gains: Water

Of course we can't live without water, and demand for fresh water is only going to increase. Beyond implementing water conservation efforts, smart approaches will be needed to manage this most vital of resources that we can't live without. Fortunately we know much of what we should do.

The average U.S. resident uses, directly and indirectly, about 2,480 cubic meters of water per year, or about 1,800 gallons per day, which is twice the global average. Lowering usage rates and improving efficiencies in water, and making those efficiencies available and affordable, should be a global priority.

[Sandra Postel](#), a leading authority on global water

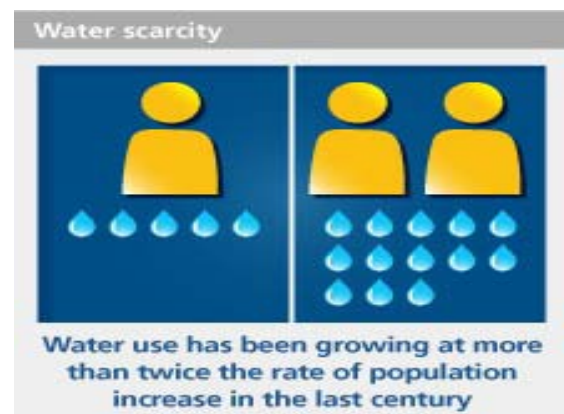


Figure 4: Water Usage and Population Growth (UN Water)

issues, says there are opportunities to get more benefit per drop through greater investments in conservation, efficiency, recycling, and reuse, as well as through shifts in what is produced where and when.

One example is to move away from water intensive crops to water efficient crops wherever possible. Grow rice where it is meant to be grown in southeast Asia, not arid California. Postel has written that “Reducing irrigation demands by even 10 percent could free up enough water to meet the new urban and industrial demands anticipated for 2025.” And public policies should support efficiency improvements and water conservation to reduce water use.

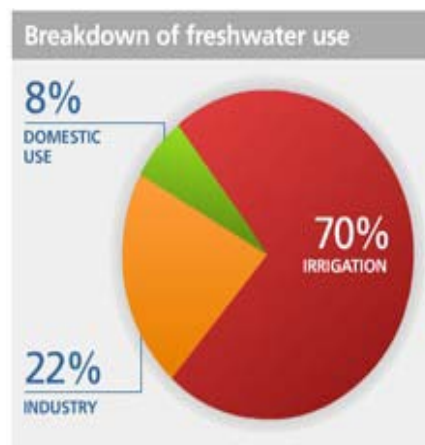


One way to improve irrigation efficiency is via drip irrigation. Under drip irrigation practices, water goes directly to a crop's root system in small doses, thereby keeping evaporation losses low. Furthermore, Lester Brown, president of Earth Policy Institute, states that drip irrigation can reduce water costs, raise yields and substantially raise incomes of small farmers.

Yet another practice is treating and reusing urban wastewater, or “brown water,” for farming. Israel probably has the most ambitious brown-water program of any country – 92 percent of the wastewater in Israel is treated and around 75 percent is used for agricultural irrigation.

One last example is choosing a less meat-intensive diet. If all U.S. residents reduced their consumption of animal products by half, the nation's total dietary water requirement in 2025 would drop by 261 billion cubic meters per year, a savings equal to the annual flow of 14 Colorado Rivers.

According to Population Action International (PAI), policymakers and NGOs also need to address barriers that inhibit water access, namely



poverty. PAI is calling for institutional reforms that enhance water access, such as infrastructure and investments in water management and distribution. As urban populations increase, demand for stable supply of water will too.

The Importance of Efficiency Gains: Energy

According to the U.S. Department of Energy, global energy demand will increase 53 percent from 2008 through 2035, with China and India accounting for half of the growth (and both countries are heavily reliant upon coal; the World Resources Institute has identified 1,200 coal plants being planned across 59 countries, with about three-quarters in India (455 plants) and China (363 plants).

As with water efficiencies, we already know much of what works for improving and reducing energy usage. Society needs to switch to a reliance on renewables and low-carbon energy and rely on solar, wind, and geothermal and reduce reliance on fossil fuels. The U.S. Energy Information Administration reported that renewable energy (biomass/biofuels, geothermal, solar, water, wind) passed a milestone in 2011 as domestic production became greater than that of nuclear power. Clean energy policies in the making, such as feed-in tariffs, off-grid/decentralized energy, retrofitted buildings, subsidies for renewables and not fossil fuels, will also make a big difference.

Today, over half the world's population lives in urban areas. By 2030, it is estimated that almost 5 billion people will live in towns and cities, with much of the urban growth concentrated in Africa and Asia. Energy will be a big concern and demand.

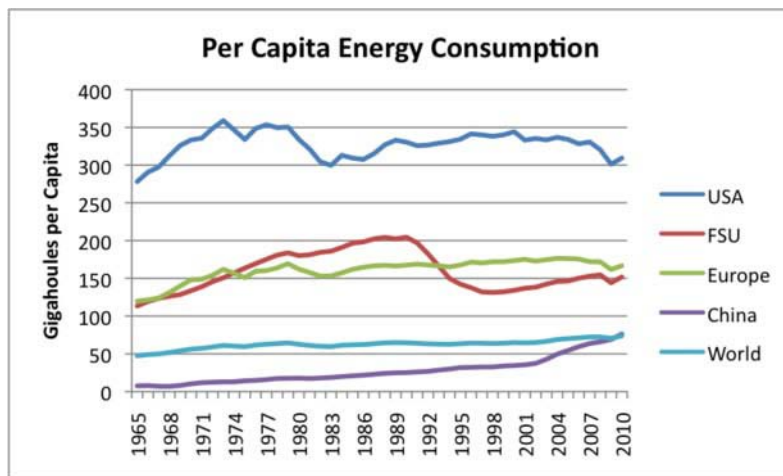


Figure 6: Global Per Capita Energy Consumption (www.theoil Drum.com/node/9023#more)

India's Barefoot College is addressing the needs of rural villages for energy, jobs, and empowerment by training illiterate and semi-illiterate women and youth to become solar engineers. The College teaches rural villagers how to harness the sun through the construction of photovoltaic systems and solar powered lanterns. A few members of the community are trained to be “Barefoot Solar Engineers” who will install, repair and maintain solar lighting units. Barefoot College has also been training rural African women, mostly grandmothers, as solar engineers as well.

Around the world, 1.2 billion people lack access to electricity. For many of them – predominantly rural villagers in South Asia and Africa – off-grid, renewable energy solutions will become even more important as they need and want more energy.

In India, entrepreneurs are coming up with creative and sustainable initiatives:

- Creating mobile phone enabled “pay-as-you-go” solar home system (SHS) technology (Simpa Networks)
- Using waste rice husks as fuel to produce off-grid renewable electricity for rural villagers (Husk Power Systems)
- Installing over 115,000 solar lighting systems in rural households and creating a rural financing program to overcome financial obstacles (SELCO India)

Innovative ideas such as barefoot solar engineers and energy generated by waste, and promoting energy conservation and efficiency, will help the world to better adapt to 7 plus billion people, and reduce reliance on dirty fossil fuels.

The Role of Social Capital

Social entrepreneurs are a great source of innovative ideas. A seminar at the Social Capital 2012 conference in San Francisco discussed entrepreneurial measures for meeting the reproductive health needs of women. Social impact bonds are one type of social innovation that could produce results for improving access to voluntary family planning services. A social impact bond is defined as an impact investing model used to increase the level of prevention investment in niche social areas. It is an emerging tool that governments are exploring to help attract private capital for public benefit and nonprofit organizations that are considering to diversify sources of revenue.

Astrid Zweynert, Deputy Editor with Thomson Reuters Foundation, said it is a way to raise social investment to pay for a public service. Here, the social investor provides the investment

up front, and they only get a return if the desired outcome is achieved. Marie Stopes International, a global organization providing sexual and reproductive health care, is also considered a social enterprise, and is raising financing for voluntary family planning services via social impact bonds.



Rwandan Parliamentarians (photo: Women's UN Report Network)

And in Rwanda, Aspen Global Health and Development reported how the government increased domestic spending on health by improving its national financial system. This included a model national community-based health insurance system, promotion of the private health sector, and community participation. This commitment to voluntary family planning quadrupled Rwanda's modern contraceptive prevalence rate from 10 percent to 45 percent in 2010, and total fertility rate decreased from 6.1 percent in 2005 to 4.6 percent in 2010. The total fertility rate (or the average number of children per woman) in Rwanda is approximately 4.6.

By the way, in Rwanda, women make up 56 percent of the country's parliamentarians, and occupy some of the most important government ministries, including the Ministry of Health.

Population, Health and the Environment Programs

Improving the health of our communities and environments can be effectively done by linking population, health, and environment initiatives, also known as PHE programs. PHE initiatives are key to overcoming the environmental and social challenges facing society. The U.S. Agency for International Development (USAID) defines PHE initiatives as:

Population, health and environment (PHE) projects acknowledge and address the complex connections between humans, their health, and their environment. The key objective of these projects is to simultaneously improve access to health services while also helping communities manage their natural resources in ways that improve their health and livelihoods and conserve the critical ecosystems they depend upon.

In Ethiopia, a local organization is working to minimize the impacts of high population growth, thereby decreasing environmental degradation and easing climate change pressures on

freshwater sources, including wetlands and forest ecosystems. Ethio-Wetlands and Natural Resource Association (EWNRA) realized that a major driver of Ethiopia's environmental degradation is population pressure. A number of years ago EWNRA turned its focus to an integrated population, health and environment approach, with family planning and reproductive health as a major component.

This past spring 2012, the Aspen Institute held a session in Washington, DC called "A Long Walk to Water: Women, Population and Access to Safe Water." As society grapples with a population projected to hit over 9 billion by 2050, how we handle water resources is perhaps the most critical issue facing the world. PHE programs are one solution. Shewaya Deribe Woldeyohannes, who works for EWNRA, was part of the panel. He is an Ethiopian specialist in wetlands and biodiversity and promotes integration of PHE projects.

Woldeyohannes has already seen how his country's growing population and demand for water is stressing the environment, from soil erosion to drought to food insecurity. The solution, he believes, lies in integrating watershed management, family planning/health, and livelihoods. Protecting only the wetlands, biodiversity and water sources alone wasn't working; "we have to focus on the human element", the human impact. He emphasized the need to educate and empower women, and for greater investment in PHE programs so all "people can live better lives."

Elsewhere in Africa, the NGO Blue Ventures is helping remote communities in Madagascar cope with population and environmental pressures by working with locals to manage coastal marine areas. It has also opened regional family planning and health care clinics to address the unmet need for family planning services and bring down the number of births per woman, which currently stands at five.



Blue Ventures' clinic in Andavadoaka, South West Madagascar (Photo: Blue Ventures)

Vik Mohan, medical director with Blue Ventures, said that a t-shirt was designed to help make the links between population growth, environment, and resources that noted that if people have too many children, there won't be enough fish. The efforts by groups such as Blue Ventures represents how a positive difference can be made by focusing on the big picture – health, social, economic and environmental.

Some other examples and benefits of PHE programs, as listed by USAID, are:

- sustainable agriculture for improved child nutrition and food security
- community credit groups or community health insurance schemes
- community-based distribution of family planning commodities
- malaria prevention through bio-environmental controls and promotion of insecticide-treated bednets
- reduction of indoor air pollution and logging through promotion of fuel-efficient stoves,
- improved access to safe water for household use
- improved access to appropriate latrines and promotion of other hygiene behaviors
- improved management of protected areas

Women's Rights

We are talking about some of the most vulnerable people on the planet. We must help to have their voices heard, and their basic rights protected.

~ Mary Robinson, former president of Ireland

In today's world, women perform 66 percent of the work, but earn only 10 percent of the world's income and own 1 percent of its property.

The best solution for women and families is to invest in women and girls – through family planning and reproductive health, education, general healthcare, land rights, improved gender equality, greater participation in decision-making, and economic development. This is the answer to significantly slow population growth and improve lives. Furthermore, investing in programs to alleviate poverty, when combined with empowering women to make their own choices in family planning, will help stabilize population growth, which has often contributed to rapid improvements in economic conditions and overall quality of life.

Lowering fertility rates empowers women because it gives them options they might not otherwise have. We know what to do, we know that most women want family planning services, and we know how to do it.

According to the Guttmacher Institute, the many reasons to empower women reflect the urgency:

- 222 million women want to avoid pregnancy but are not using modern contraception;
- 80 million unintended pregnancies each year due to contraceptive failure and non-use among women who do not want a pregnancy soon;
- nearly 300,000 women die from pregnancy-related causes each year and over 100,000 of these pregnancies would have been unintended;
- 1 in 7 girls will marry before age 15 in the developing world;
- 1 in 5 girls in developing countries who enroll in primary school never finish.

Providing access to contraceptives must be voluntary and based on choice, and all forms of contraception must be proven safe and reliable and be provided by trained professionals. Above all, the world needs to listen to the voices of women and their families who want family planning services and not lose sight of the ultimate goal of empowering and improving women's lives.

According to the Worldwatch Institute and Women Deliver, satisfying the unmet need for contraceptives in the developing world would reduce overall health costs and save more than US\$1.5 billion a year. Each U.S. dollar spent on family planning can save governments up to US\$6 on health, housing, water, and other public services.

Musimbi Kanyaro of the Global Fund for Women, speaking at the Aspen Ideas Festival, said that the solutions include education for women and girls and improved economic opportunities, along with greater gender equality and increased security for women. She also talked about the return on investment by supporting women's empowerment, namely that educating women results in an educated child, family, and community.

Helene D. Gayle, CEO of CARE, also spoke at Aspen, and emphasized the world's interconnectedness, saying "these are global problems and need global solutions." The focus should be on women and girls, Gayle said, as they are the key drivers for creating social change. "Let's help them make choices in their own best interests, which are that of society too."

Promoting Reproductive Rights

The Center for Reproductive Rights produced a reproductive rights framework in 2003 that listed four guiding principles for devising population and development policies that "safeguard the human rights of all people, including women". Those principles are human rights, a holistic reproductive health approach, advancement of women, and adolescents.

The Center's briefing paper, entitled *Rethinking Population Policies: A Reproductive Rights Framework*, is an excellent approach for addressing women's rights and population growth. The four guiding principles are briefly summarized below.

- Human Rights – every law or policy addressing population issues, especially those relating to fertility, should be grounded in respect for and promotion of human rights, especially the reproductive rights of women. The 1994 Cairo United Nations International Conference on Population and Development (ICPD) preamble "affirms the application of universally recognized human rights standards to all aspects of population programmes."
- A Holistic Reproductive Health Approach – this principle requires that there should not be a singular focus on fertility or family planning services but rather include comprehensive reproductive health care. For example, family planning counseling and information; education and services for prenatal care, safe delivery, and postnatal care; and education, information and counseling, as appropriate, on human sexuality, reproductive health, and responsible parenthood.

- Advancement of Women – women's empowerment/improvement of their social, political and economic status is necessary for successful population policies. The ICPD Programme of Action states that “Experience shows that population and development programmes are most effective when steps have simultaneously been taken to improve the status of women.”
- Adolescents – this is a vulnerable segment of the population (ages 10-19) whose needs, especially reproductive health needs, are often neglected. Many adolescents are sexually active and their informed participation is necessary for a sustainable population or development program.

Some of this was forgotten and/or neglected at the Rio+20 conference. Though the final outcome document did reaffirm support for sexual and reproductive health and for the ICPD Programme of Action, no specific commitments were made, much to the frustration of women's rights advocates. Disconcertingly, it also failed to recognize the connection between reproductive rights/sexual health, population, and sustainable development. While not a setback, it certainly wasn't a step in the right direction.

Robert Engelman, author of *More: Population, Nature, and What Women Want* and president of the Worldwatch Institute, said at the end of Rio+20, “Yet the world's governments still fail to grasp the centrality of women's capacities, and especially their reproductive autonomy, to the conference goal of sustainable prosperity for all. A human population in which women, men and young people are sexually and reproductively healthy, and whose sexual and reproductive rights are assured, will be far more likely to live sustainably than one in which these rights and this access remain too sensitive and controversial for governments to endorse unanimously.”

Mary Robinson, former president of Ireland and longtime women and human rights advocate, said after the UN Rio+20 conference, “Women's rights are under the greatest attack for almost 20 years after a failure of world leaders to continue to support reproductive rights”. In Rio, she said global leaders were “backsliding on fundamental texts” for protecting women and girls, namely gains made in Cairo 1994 (see below) and Beijing 1995 (The Beijing Declaration and Platform for Action, at the UN Fourth World Conference on Women, which affirmed a global commitment to achieving equality, development and peace for women worldwide).

Robinson said this “failure of leadership” could have a devastating effect on some of the world's poorest and most powerless women.

The Importance of Reproductive Rights: Cairo and looking ahead to Cairo+20

The disappointment at Rio highlighted the need to reconfirm past agreements on reproductive rights, and continue to press ahead on the issue.

At the International Conference on Population and Development (ICPD) in 1994, 179 governments adopted a 20-year Programme of Action (PoA) to create a more equal, sustainable world.

The Cairo PoA defined reproductive rights – for the first time – in an international agreement:

Reproductive rights embrace certain human rights that are already recognized in national laws, international human rights documents and other consensus documents. The rights rest on the recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence, as expressed in human rights documents.

Participants designed a new development paradigm focused on sexual and reproductive rights, centered on women, which has directed much of the work on population issues since then. It was a major achievement for the women's and reproductive rights movements.

Also at the Cairo ICPD meeting, country governments agreed that rapid population growth and unsustainable resource consumption threatens the world's common future. A key provision of the Cairo accord called upon governments to balance population growth rates with economic, social and environmental goals.

Organizations, policymakers, activists and others are looking to reaffirm the Cairo PoA at “Cairo+20” in 2014 and direct more attention and funding towards women's reproductive health needs. At Rio+20, several speakers were looking ahead to Cairo and pushing reproductive rights in the build-up to that meeting.

Christian Friis Bach, Danish minister for development cooperation told an audience on the conference's last day that because language on reproductive rights was left out of the final Rio+20 text, “it has created a campaign here in Rio that hasn't been seen”, with more people and leaders standing up for reproductive rights. He envisioned a global advocacy campaign and greater involvement of world leaders who together will have a strong voice for reproductive rights for Cairo 2014.

Momentum of the London Summit on Family Planning

In summer 2012 an event took place that has created a lot of momentum around family planning and women's rights, at least for the time being. The London Summit on Family Planning, was a high-level gathering sponsored by the Gates Foundation and the UK Department for International Development. The purpose was to get the world to seriously invest in voluntary family planning services by making contraceptives more affordable and accessible, with a steady supply, and increase R&D for better and safer contraceptives.

Donors pledged to provide \$2.6 billion over the next eight years to help the world's 120 million poorest women gain access to family planning information, services and supplies by 2020.

It has been called a "breakthrough for the world's poorest women and girls," with more than 20 developing countries making commitments to increase spending on family planning.

Ministers from developing countries also made commitments to improve family planning programs, including India, which pledged to have universal access to family planning by 2020 and Malawi, which will raise the minimum age of marriage to age 18.

Now the real work begins. Post summit, next steps include ensuring that donors follow through on financial commitments and that family planning services get to the millions of women targeted by this effort and who want it, and doing this with a rights-based approach.

Quick Facts:

Providing the current level of contraceptive care in the developing world costs \$4 billion annually and saves \$5.6 billion in maternal and newborn health care costs. The Guttmacher Institute reports that fully meeting all need for modern contraceptive methods would cost \$8.1 billion per year. Americans spent \$8 billion celebrating Halloween in 2012.

Women and the Environment

Women's health and reproductive rights go hand in hand with a sustainable environment. When women's needs are met, they are able to better manage resources, confront the effects of climate change and handle climate mitigation and adaptation, and overall support sustainable communities.

Biodiversity loss affects access to education and gender equality by increasing the time spent by women and children in performing routine tasks, such as collecting valuable resources like fuel, food and water.

We must emphasize the connections among family planning, environmental sustainability, and women's empowerment. Family planning and women's rights are low-hanging fruit – women want this, it's fairly easy to support and promote, and is inexpensive in the scheme of things.

This means ensuring education for women and girls, providing access to health care, including voluntary family planning services, recognizing greater land rights, reducing and eradicating gender and economic inequality, ending child marriages, and improving economic opportunities. This will allow women – who bear the brunt of environmental problems – to be able to deal with the increasingly severe environmental problems affecting communities worldwide. Women are on the front lines of climate change and once their needs are met, they can use traditional knowledge and skills that many have to help overcome pressing environmental issues.

Women are the traditional caretakers of their community and stewards of their environment. Their responsibilities put them in a position to better adapt to changing environmental realities. Empowering women often leads to more effective use and conservation of natural resources.



Promoting Women's Rights at Rio+20 – Environmental Activists Marina Silva, Sheyla Jurana, and Vandana Shiva (photo: Kim Lovell)

At the UN Rio+20 Earth Summit, U.S. Secretary of State Hillary Clinton announced to conference delegates that “women must be empowered to make decisions on whether and when to have children” if the world is to attain agreed-upon sustainable development goals.

The late Wangari Maathai, winner of the Nobel Peace Prize, founder of the Green Belt Movement, and deputy minister for the Environment and Natural Resources in Kenya, always spoke passionately on the need to heal the planet. She saw women as the key. Through the Green Belt Movement, she helped women in rural Kenya plant and care for millions of trees, thereby empowering women – and communities – to conserve the environment and improve livelihoods. It began by training women to properly plant and cultivate seedlings, as a way to address deforestation and to generate a source of income for women. Today it is a strong force in promoting and protecting local environment, economy and culture.

In Maathai's opinion, poverty and environmental issues are closely linked. People are dependent upon the land, water, and forests. The environment ensures livelihoods of communities. In her words, “These two, they are like two sides of the same coin; they cannot be separated.” As for population, Maathai said “To me, there is a very close connection between the numbers, the level of poverty and the rate at which the environment is destroyed.”

In her book *Replenishing the Earth*, Maathai wrote about the ecological crisis we are facing today. She said, “Addressing it requires a new level of consciousness, where we understand that we belong to the larger family of life on Earth...it should be in our nature to be custodians of the planet and do what's right for the earth and, in the process, for ourselves.”



Wangari Maathai (photo: Green Belt Movement)

Carmen Barroso, Regional Director for International Planned Parenthood Federation/Western Hemisphere Region, reiterated at the Rio+20 Earth Summit that there is an integral relationship between women's empowerment and sustainability. Barroso said, “Sexual and reproductive health and rights cannot be separated from sustainable development.” She stressed that it is vital to global economic health and that “we are helping to advance an agenda with inclusion of health, gender equality and reproductive rights as a key part of sustainability.”

Women and Water

Any threats to water supply in developing countries affects women and girls the most, as they bear the burden of fetching water for their families. Water is needed for cooking, washing, cleaning, hygiene, and of course drinking. Women spend 200 million hours a day collecting water. In Africa, 90 percent of the work of gathering water and wood, for the household and food preparation, is done by women.

According to IFAD (International Fund for Agricultural Development, a UN agency), most of the world's 1.2 billion poor people, two thirds of whom are women, live in water-scarce countries and do not have access to safe and reliable supplies of water for productive and domestic uses. The bulk of these rural poor people are dependent on agriculture for their livelihoods and live in sub-Saharan Africa and South Asia, the regions which are also home to most of the world's water poor.

In fact, in water-scarce regions, inequitable access to water resources is increasing because of competition for limited resources; this particularly affects poor rural people, especially women.

Quick Facts:

According to the UN Food and Agriculture Organization, over 230 million people live in 26 countries classified as water deficient; 11 of these nations are in Africa. It is expected that by 2025 almost two thirds of the world's population are likely to experience some type of water stress. For 1 billion of them, the shortage will be severe and socially disruptive.

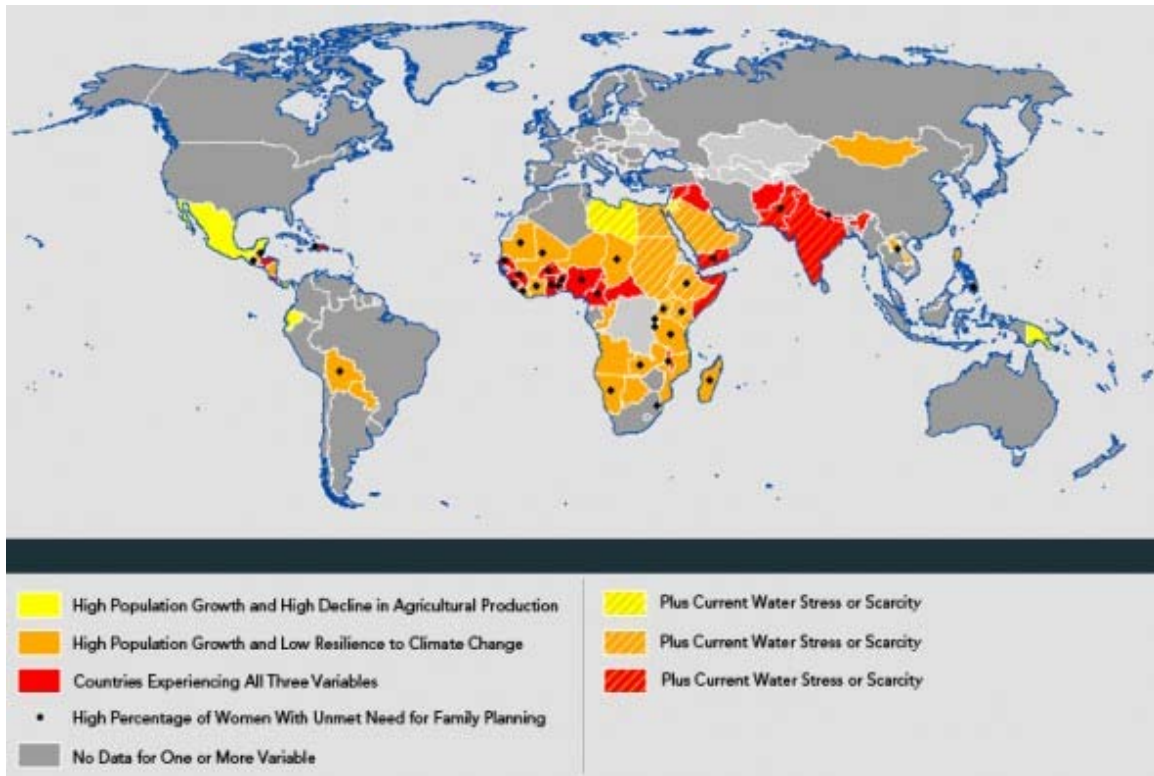


Figure 7: Population Growth, Climate Change, and Family Planning (Source: Population Action International)

Greater water conservation efforts, improved and implemented water efficiency measures, and technological improvements can, and actually are, better ways to address water scarcity. Yet tapping into local, traditional, indigenous, and women's knowledge can play a big part.

GRAVIS (Gramin Vikas Vigyan Samiti), is a rural empowerment organization based in the state of Rajasthan, India. The mission of GRAVIS, grounded in Gandhian philosophy, is to promote sustainable rural development via capacity building, community and women's empowerment, social justice, and protecting the environment.

GRAVIS works in the Thar Desert in western Rajasthan. With 23 million people, it is the world's most densely populated desert ecosystem. Life is challenging, with unpredictable rainfall, environmental degradation, climatic extremes, resource scarcity, few health clinics, and oppressive social standards for women. GRAVIS reaches approximately 1 million people through a holistic approach focusing on water security, food security, health, and education.

According to the International Development Exchange (IDEX), desert families spend upwards of 70 percent of their income on water. Not surprisingly, water, and water management, is a huge issue. This is especially so for Rajasthani women, who spend much of their time walking great distances to collect water for their families. Often it is young girls tasked with this burden. Fetching water is a priority that is put before school, so few girls are able to gain an education. As water becomes more scarce, the negative impact on women becomes greater.

One water initiative is implementing a traditional way of harvesting and storing rain water to help Rajasthani communities. Using taankas, or underground water storage tanks, GRAVIS helped 20 villages construct these tanks that resulted in vastly improved water security during times of drought. At the same time, it eased the water burden on women.

A *taanka* reportedly costs about \$250, and the tanks capture, filter, and store rainwater normally collected from rooftops. Each taanka holds 20,000 liters of water. Once a tank is filled, it can last a family for 5-6 months. Freed from the need to collect water, more girls are able to attend school, which is a win-win for the family and community.



A taanka in Rajasthan (Photo credit: globalgiving.org)

Women and Food Security

The Food and Agriculture Organization predicts that there could be a doubling of demand for food crops by 2050, due to population and economic growth.

And a recent report from Oxfam warns that global warming and extreme weather will combine to create devastating food price shocks in the coming decades. The failure of world governments to slash greenhouse gas emissions “presents a future of greater food price volatility, with severe consequences for the precarious lives and livelihoods of people living in poverty.”

The impact on women could be severe, who will be coping with climate change and facing the threat of food insecurity. The problem is compounded by inequality, globalization, and poverty.

The U.S. Agency for International Development (USAID) states that women make up 43 percent of the agriculture labor force. Yet they are less likely to own the land they farm. When women have the same amount of land as men, there is over a 10 percent increase in crop yields.

FEMALE SHARE OF POPULATION ECONOMICALLY ACTIVE IN AGRICULTURE (%) Source: FAOSTAT

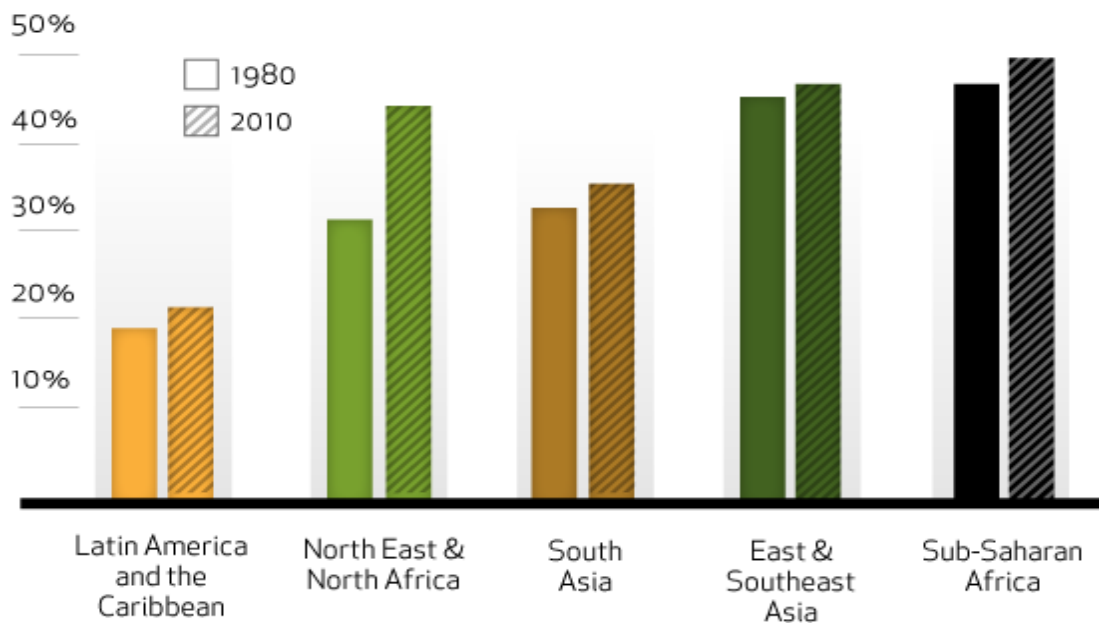


Figure 8: Women and Agriculture (Source: FAOSTat)

In India, nearly eighty percent of women work in agriculture, yet less than seven percent of women have land tenure. Moreover, small farmers livelihoods in India are threatened by industrial agriculture, which degrades the environment and negatively impacts the role of women in agriculture. Women have traditionally been seed keepers who preserve the biological diversity and health of crops.

Despite the bleak outlook, there are women all over the world doing amazing work and creating sustainable livelihoods based on agriculture.

The Women's Earth Alliance (WEA), based in the U.S., works to connect rural women farmers and help them overcome the many challenges they face, with climate change and food security at the top of the list. One program focuses on ecological farming, rights education, traditional knowledge, just livelihoods, and adapting to climate change.

WEA's India program promotes the idea that women are not victims but instead are the ones holding down the home and finding ways to improve lives. Through peer-to-peer/farmer-to-farmer exchanges, women come together to share and promote empowerment, self-reliance, and best practices.

One WEA training participant, Manju Devi, is a single mother of three from Bihar who has trained over 144 women in five villages in organic farming and seed saving. She has also set up her own organic kitchen garden site, which she uses for demonstrations.



Women Farmers in India (Photo: Rucha Chitnis, Women's Earth Alliance)

Another Indian woman farmer's success story was that of Ram Ratti. A decade ago she was fortunate enough to receive training from the Gorakhpur Environmental Action Group in sustainable farming practices. Today she grows over 30 varieties of fruits and vegetables and

has trained 200 women in organic agriculture and seed saving. Ninety of these women are now smallholder organic farmers with a diverse group of crops cultivated from local seed varieties.

Both of these women understand that sharing women's knowledge is an integral part of food security, especially in the face of climate change. And they are making use of women's intimate knowledge of farming, natural pesticides, and medicine. Rucha Chitnis, WEA's India Program Director, said these "women are reclaiming "green" from the green revolution."

Elsewhere in India, Navdanya, an organization located in the Himalayan foothills, works with farmers to save seeds that have been used by Indian farmers for generations.

Along with seed saving, Navdanya promotes biodiversity, organic farming, and farmers' rights. They also help build community seed banks and train farmers and others in food sovereignty and create awareness of indigenous knowledge and practices.

Quick Facts:

Women produce 80 percent of the food in Africa, but they are 60 percent of the hungry. (Global Fund for Women)

Ultimately, it is women who are the primary caretakers of natural resources. By empowering them with property rights, education, health and reproductive rights, economic opportunities, and decision-making authority, the result will be an environment, families and communities that are better off and more self-reliant.

Health and Climate Change Connections

In late 2009, I participated in the Sierra Club's Global Population and Environment Program's study tour to India to meet with Indian citizens working to protect the environment and preserve resources for future generations by advancing global reproductive health and sustainable development initiatives. We participated in meetings that addressed actions promoting universal

access to voluntary family planning services, advancing women's and girls' basic rights (including access to health care, education and economic opportunity), and raising public awareness of environmental degradation and the need to preserve natural resources. One theme stood out above all others: empowering women will lead to better family health, education, and overall environment, especially in the face of climate change.

The fact that climate change is affecting other issues in India became very clear when our group visited the Mamta Health Institute for Mother & Child in New Delhi. The Institute's mission is to empower underserved and marginalized individuals and communities through gender sensitive participatory processes, in order to achieve optimal and sustainable health and development.

Core work areas include maternal and child health, sexual and reproductive health, and youth and gender rights. However, Mamta is now starting to work on climate change and public health. The directors want to focus on the impact of increasing air pollution and heat stress on pregnant women, as well as follow up on recent studies that have shown abnormalities in children due to heat stress. Another subject under consideration is malaria and climate change, with the number of cases of this disease on the rise in India. Anjali Sakhuja, one of Mamta's directors, stated that climate change will alter the whole epidemiology of things, especially childhood diseases.



Rajasthani mother and child (photo: Jennifer Crick)

What struck me most about Mamta's climate-related projects is the focus on women. One of their stated reasons for stepping into the climate change arena is that little has been done on the effect of climate changes on women. Again, and it can't be stated enough, women will bear the brunt of climate change. Mamta is a small organization, and I am sure the few resources it has are being stretched in many directions, mainly on maternal and child health issues. But the group's leaders understand that unless climate change is dealt with as well, it will overshadow many other problems.

Mamta is an organization that works in rural communities and urban slums, often with the poorest of the poor. The fact that they get it (climate change) and are willing to try and tackle it should give hope to the rest of us. Mamta, by the way, translates as a mother's affection for her child.

Culture

At a public talk in early 2012 at the Aspen Institute, writer Laurie Mazur, in response to a question on the impact of culture on population growth, said cultures are not monolithic. "Cultures do change, and can do so with lightening speed," she stated. Mazur cited the dramatic

drop in fertility rates when family planning was introduced in countries around the world. What is important to bear in mind is that people – men and women – have the means and power to make their own decisions about family planning.

Culture and religion are a big part of the reason why talking about population issues has been so taboo. To overcome this, more education and awareness is needed. It still comes down to rights and choice though; what works for one culture/community/country may not work for another. That's why it is right to talk about voluntary family planning services and reproductive rights, and not population control.

In Senegal, the UNHCR (the United Nations Refugee Agency) has noticed that religious attitudes towards family planning are changing. One successful measure has been focusing not on contraceptives but the health of mothers. Catholic and Muslim religious leaders have been working together to try and issue updated religious guidelines on family planning, stressing the fact that neither the Koran, nor the Bible are against spacing of births. According to a Senegalese midwife, an imam at her local mosque preaches to families to space their children by 30 months. "He tells families this is how to keep their wives healthy. Family planning is not banned in Islam... Religion is about well-being, and spacing children is part of that."

Another initiative is School for Husbands, launched by the UN Population Fund in Niger, where married men are educated about reproductive health in order to improve access to maternal and newborn health services; sexual and reproductive health issues are also discussed. The schools are endorsed by traditional and religious leaders, and bring together well-respected men in the community to discuss specific concerns centered on reproductive health. As of March 2012, 137 schools have been established in southern Niger, with more set to open in the western part of the country.

The model is set to be replicated in Senegal. The midwife mentioned above told the UN that husbands may be reluctant to embrace family planning at first. At the schools though, she said, "we discuss with them the benefits... that their wife will have more time to look after each child, more time to look after herself, and most importantly, more time to look after him."

Mazur is correct in noting that cultures can change. And that change must predominantly come from within, from an existing understanding of culture, tradition, and religion.

Child Marriage

It is often said that policymakers should go after the low-hanging fruit when devising policies. In this case, supporting an end to child marriage is one such policy that will empower women and girls and in turn lead to healthier women, mothers, families, and lower fertility rates.

A big campaign to end child marriages was launched in October 2012, on the first International Day of the Girl. Many organizations and governments have been involved, working to raise awareness and educational efforts.

The United Nations Population Fund (UNFPA) attributes the main reason for child marriages to the low status of women and girls throughout the world, which crosses ethnic and religious lines.

In Nepal, the UNFPA is supporting a program called *Choose Your Future*. It focuses on teaching girls not currently attending school about their health and life skills. The teachers discuss the benefits of schooling and try to persuade parents to let their daughters attend full-time. The classes also teach girls that child marriage is illegal and can cause childbirth complications. The UNFPA reports that this approach is working in Nepal, where girls' education is free through the tenth grade.

Another effort is Girls Not Brides, a global partnership with a commitment to end child marriage and enable girls to fulfill their potential. The group's stated aim is "to raise our collective voice to shatter the silence that has long surrounded the issue of child marriage and draw attention to its harmful impact."

Quick Facts:

In the past decade, 58 million young women in developing countries have been married before the age of 18.

1 in 9 girls (15 million) have been forced into marriage between the ages of 10 and 14.

In Niger, 75 percent of girls marry before 18.

Childbirth complications are the leading cause of death for girls 15 to 19 in developing countries.

(source: Population Reference Bureau)

Youth Rights

Sustainable development isn't sustainable if it doesn't empower women and young people to control their own bodies, educate themselves and have a voice in government at all levels.

~Carmen Barroso, International Planned Parenthood Federation at Rio+20

Nearly half of the world's population is under the age of 25, or more than 3 billion people. This is the largest generation in history entering reproductive age. The opportunities we provide these youths, and the choices they make – especially in terms of health, education, and jobs – will make a huge difference in our future, including whether global population rises to 10 billion people by 2050 or stabilizes at around 8 billion.

Access to comprehensive sexual and reproductive health education and services is a fundamental right for youth. The 1994 International Conference on Population and Development (the Cairo population meeting) Programme of Action recognizes youth reproductive rights as a priority.

The largest number of youth entering reproductive age live in the developing world where access to family planning and reproductive health services is very low. In some areas of the world, young women (ages 15-19) are twice as likely to lack access to contraceptives they desire as women over the age of twenty.

When the sexual health and reproductive rights of youth are addressed, it promotes better health, provides educational and in turn economic opportunities, and ability to care for the environment in the face of ecological challenges.

A nation's level of development is a key factor. Population Action International reports that for young women aged 15-24 in Rwanda, contraceptive use is 3 percent; in Colombia, for the same age group, it is 66 percent.

Addressing the contraceptive needs of young people is important because they are at a critical transitional stage. Most people become sexually active during adolescence, yet most young people do not have access to the programs and services that they need. Providing young people with youth-friendly comprehensive sexual and reproductive health education, information and services, including family planning services, will empower them to reach their full potential.

Ensuring that young people have access to family planning, sexual, and reproductive health services has far-reaching benefits. In addition to reducing unintended pregnancies, family

planning is a key strategy to protect the health of adolescent girls, decrease maternal deaths, and reduce the number of abortions.

Quick Facts:

In Iran, all university students – male and female, regardless of their field of study – have been required since the mid-1990s to take a course titled “family planning” that covers broad reproductive health issues. (source: Population Reference Bureau)

The Population Reference Bureau's (PRB) presentation on *The Time is Now: Invest in Sexual and Reproductive Health for*

Young People discussed how comprehensive sex education empowers young people to make healthy decisions about their behavior. PRB reported that: global evidence shows that these programs help young people abstain from or delay sex; reduce the frequency of unprotected sex and the number of sexual partners; increase the use of contraception to prevent unintended pregnancies and sexually transmitted infections; and in turn, help delay that first birth to ensure a safer pregnancy and delivery.

The proper investments in sexual and reproductive health, according to PRB, will:

- keep young people, especially girls, in school;
- help young people start a productive working life;
- prepare young people for their responsibilities as citizens;
- foster healthy relationships between men and women;
- encourage young people to delay childbearing and to also make decisions together about the timing and spacing of pregnancies and number of children they have.

Comprehensive sexual education and reproductive rights have a big impact on girls. Delaying marriage and childbearing among adolescent girls could help increase school enrollment by 20 percent across the continent. And the more educated a girl is, the more likely she is to use contraception and avoid unintended pregnancy.

Alexandra Hervish of PRB noted that Ghana has been able to reduce its adolescent fertility rate from 125 births per 1,000 adolescent girls to 66 births per 1,000 adolescent girls in just twenty years. Ghana was very successful because the country developed an adolescent reproductive health policy, offered broad reproductive health services for youth, and encouraged young people to advocate for themselves at regional and district level meetings.

While much attention is on youths in the developing world, the need for comprehensive sexual education and reproductive rights applies to developed countries as well. This is especially true in the United States, which has the highest rate of teen pregnancy in the developed world. Nearly 7 percent of girls between the ages of 15 and 19 became pregnant in 2008. The good news is that this number has been on the decline, mainly due to improved teen contraceptive use.

Population age 15-24 by major regions (millions)

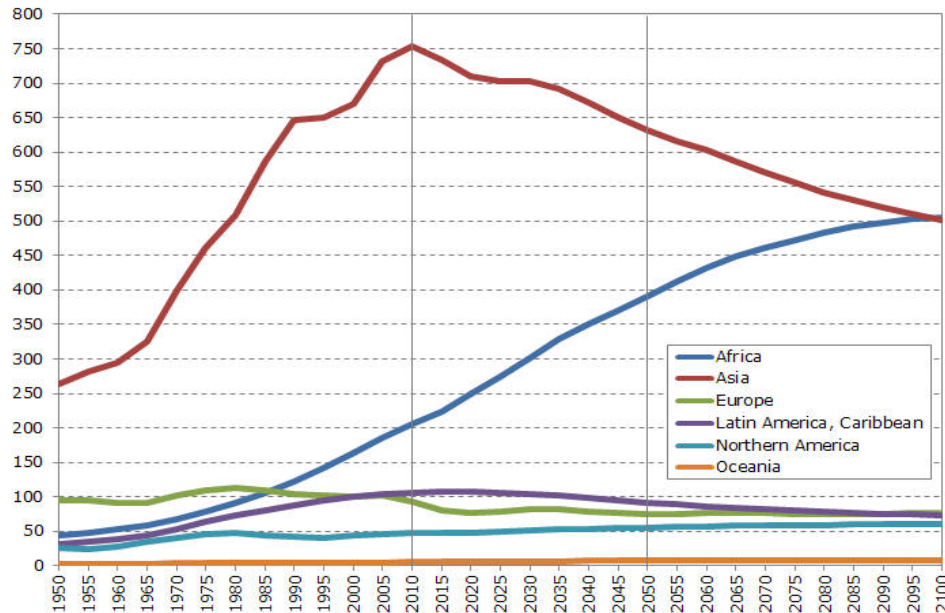


Figure 9: Global Youth Population, by Region (United Nations, Department of Economic and Social Affairs)

Expect to hear more about the demographic dividend, as society comes to term with the needs of this generation and the implications of such a “youth bulge.”

The demographic dividend is described as an opportunity that arises when a country transitions from high to low rates of fertility and child and infant mortality. This transition creates a generation that is significantly larger than the generations immediately preceding and following it. As this group hits working age, they have the potential to enter into productive economic activities and invest savings, thus spurring heightened economic growth.

At the UN Conference on Sustainable Development (Rio+20) in Rio, one of the side events focused on the demographic dividend. Peggy Clark of the Aspen Institute stated that a country with a large youth population can realize a demographic dividend if it invests in improving child survival rates, and increases access to reproductive health, access to education, and job creation. As child mortality and fertility rates decrease, the former youth bulge becomes a bulge of working-age population (whereby the working population experiences a significant gain in benefits).

Susan Reichle, Assistant to the Administrator for the U.S. Agency for International Development's Bureau of Policy, Planning and Learning, told Rio attendees that with 40 percent of the population in developing countries under the age of 20, it should be seen as a challenge that can be turned into an opportunity.

Reichle said countries have to make investments early on in child survival, family planning, and access to education – especially education of girls – in order to reap greater dividends. An integrated approach is important, with investments in vocational training and infrastructure also needed.

Carmen Barroso, of International Planned Parenthood Federation, stressed that it is necessary to pay attention to existing inequalities and the need for contraceptives by youth. To keep population numbers stable, the large number of young people must also delay having their first child.

Unfortunately, the negotiating text for the Rio+20 outcome document removed language on sexual and reproductive rights and adolescents.

The sheer number of youth today underscores the urgency of recognizing basic rights, improving access to resources equitably and efficiently, and increasing investment in youth for the benefit of all society. The fight to further youth rights continues.

Spotlight: Advocates for Youth



Youth activists from around the world are raising their voices and participation levels in governmental negotiations in an attempt to shape global policies affecting the sexual and reproductive rights of youth.

One very active group is Advocates for Youth, which works in the U.S. and in developing countries. The organization's mission is to champion efforts to help young people make informed and responsible decisions about their reproductive and sexual health. Advocates for Youth believes it can best serve the field by boldly advocating for a more positive and realistic approach to adolescent sexual health.

Leo Christian Lauzon from the Philippines represented Advocates for Youth at a Rio+20 panel focused on youth rights. He urged that youth need to get their voices out there and heard on sexual and reproductive health and rights and family planning and most importantly, translate this into action and youth participation. Leo also said that youth want to see real action at conferences. They "want to be more empowered and more engaged and not just a token representatives."

Brazil, Youth and Rio+20

A field trip taken during Rio+20 visited a favela (the Brazilian term for shanty town or slum) family planning clinic and resource center where International Planned Parenthood Federation (IPPF) organized a meeting with youth peer reproductive health activists.

The site was the BEMFAM (Sociedade Civil Bem-Estar Familiar no Brasil) health clinic in the community of Cachoeirinha, which strives to provide quality healthcare to local residents and promote their sexual and reproductive

health and rights. It works with the government and private sector to increase access to vital health services to poor, marginalized and youth populations.

A dozen or so young peer educators talked openly about their thoughts and experiences with reproductive health issues, relationships, and the social and economic pressures they confront. These youth said they had not received any sex education in schools.

Carmen Barroso, Regional Director for IPPF/Western Hemisphere Region, was fielding questions from international activists and others on the experiences of Brazilian youth. She said that Brazil, despite making enormous gains in voluntary reduction of its fertility rate, had not made much progress with its young people, where fertility rates are still high. One young man commented on how gender inequality starts with access to contraceptives, or how it is easier to get condoms than birth control pills. When asked if youth could talk to their parents about sex, these Brazilian adolescents, like most of their peers around the world, said they were not comfortable talking with their parents and relied on friends. One commented on facing a lot of peer pressure at school to have sex.



Brazilian youth at BENFAM clinic (photo: ippfwhr.org)

Our time spent with these youth was short. Another young woman said she became part of this peer reproductive health group after a family member became pregnant and that motivated her involvement, while a different woman said she joined out of curiosity and to be better informed.

Ney Costa, executive director of BEMFAM, said that these youth face many threats to their health and well-being. “When it comes to sex, they are already short-changed by a denial of their right to information and health services. This is the largest generation of young people the world has seen – if we want to see an end to poverty, better health outcomes and a more sustainable world, their needs must be at the center of the global agenda.”

Rights of Nature

The earth does not belong to humans.

~ Norwegian philosopher Arnes Naess, one of the founders of the deep ecology movement

Given the reality of population growth, climate change, finite resources and a planet already extended beyond its carrying capacity, the urgency of finding sustainable solutions is upon us now. Successfully addressing global problems will require a change in our way of looking at the world. One paradigm-shifting concept is that of recognizing rights of nature. This construct would be good way to bridge the concerns of environmentalists, human rights and women's rights activists, and those concerned about stabilizing population growth.

Concerning crucial issues such as resource depletion, environmental degradation, and climate change, it must realized that, to paraphrase Einstein, we can't use the current system and way of thinking, which created the problem, to fix the problem. Here is where new thinking on recognizing nature's rights comes into play.

What exactly, does giving rights to nature mean? Rather than treating nature as property under the law (as women and slaves once were), rights of nature acknowledges that *nature in all its life forms has the right to exist, persist, maintain and regenerate its vital cycles.*

Attorney Thomas Linzey, whose organization Community Environmental Legal Defense Fund has been instrumental in promoting rights of nature and community rights, has described it as a worldwide movement to amend constitutions and introduce laws to codify the rights of the natural world, balancing what is good for humans with what is beneficial for other species and the planet.

Rights of nature laws eliminate the authority of a property owner to interfere with the functioning of ecosystems and natural communities that exist and depend upon that property for their existence and flourishing. They do not stop development; rather they stop development and use



of property that *interferes* with the existence and vitality of those ecosystems. Rights of nature lays the foundation for truly sustainable development to occur.

Simply put, it is seeing the natural world as something other than a resource for human exploitation, and that humans are part of nature, not separate. We are part of the web of life.

For the Western world, lawyers have laid the groundwork for natural rights. In 1972 Christopher Stone, a law professor at the University of Southern California, wrote a seminal piece called *Should Trees Have Standing?* in which he argued that trees and other natural resources should have rights. He also recognized that for this to happen, the fundamental basis of our legal systems would need to be rewritten.

Stone wrote, "The fact is, that each time there is a movement to confer rights onto some new 'entity' the proposal is bound to sound odd or frightening or laughable. This is partly because until the right-less thing receives its rights, we cannot see it as anything but a thing for the use of 'us' -- us being, of course, those of us who hold rights."

In the same year as Professor Stone's article was published, Supreme Court Justice William O. Douglas argued in a famous dissent in the case of *Sierra Club v. Morton* that trees and other natural resources should have legal rights. The river, Douglas wrote, "is the living symbol of all the life it sustains or nourishes—the fish, aquatic insects, water ouzels, otter, fisher, deer, elk, bear, and all other animals, including man, who are dependent on it or who enjoy it for its sight, its sound, or its life. The river as plaintiff speaks for the ecological unit of life that is part of it."

There is also growing awareness today around the concept of ecocide. It is defined as the extensive destruction, damage to or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished.

Polly Higgins, an international environmental lawyer from the UK, has been working on the concept of ecocide and promoting that it is the 5th Crime Against Peace (There are currently four international Crimes Against Peace: Genocide, Crimes Against Humanity, War Crimes, and Crimes of Aggression). If made the fifth, ecocide could be tried at the International Criminal Court.

Higgins has said that "All this existing environmental law is not working. It can't be working, because you just have to look at the Amazon to see this is not working." This is hard to dispute, as during the past 40 years close to 20 percent of the Amazon rain forest has been cut down—more than in all the previous 450 years since European colonization began.

Linda Sheehan, a lawyer and director of the Earth Law Center, recently said "Our laws fail to reflect the fact that we are inextricably intertwined with the natural world, and that what we do to

the Earth, we do to ourselves.” This recognition that the system is broke and a different approach to “fix it” must be found is expanding.

Rights of nature, ecocide, wild law; these are concepts to prevent further environmental degradation and an attempt to bring together not only communities but civil society organizations with varied missions, concentrations and backgrounds. With a growing push to shift toward a “green economy,” it becomes vitally important to understand this issue, educate others, and find long-term, successful tactics to protect the ecosystem.

At first glance, rights of nature might sound far-fetched, but it is not as radical as it may seem. Species all over the world are at grave risk due to human development. The planet is likely undergoing its sixth mass extinction. Despite global conservation efforts, more species are lost every day, some never “discovered”, leaving unknown their impact on the web of life.

The statistics speak for themselves. Animal populations across the planet are 30 per cent smaller now than in 1970, according to the UN Environment Programme. The UN reports almost one-fifth of vertebrate species are close to extinction, with amphibians most at risk. Each year, 52 vertebrate species move one category closer to extinction on the International Union for the Conservation of Nature "red list" of endangered species. And Africa's Eastern gorillas, the largest living primate, have lost more than half their habitat since the early 1990s.

In a study in the *Proceedings of the National Academy of Sciences*, researchers at Yale, Texas A&M and Boston University predict that by 2030 urban areas will expand by more than 463,000 square miles - equivalent to 20,000 American football fields becoming urban every day for the first three decades of this century. This expansion will encroach on or destroy habitats for 139 amphibian species, 41 mammalian species and 25 bird species that are either on the Critically Endangered or Endangered Lists of the International Union for Conservation of Nature (IUCN).

Urban expansion will be concentrated in that continent's five regions: the Nile River in Egypt; the coast of West Africa on the Gulf of Guinea; the northern shores of Lake Victoria in Kenya and Uganda and extending into Rwanda and Burundi; the Kano region in northern Nigeria; and greater Addis Ababa, Ethiopia. These are places of high biodiversity and home to threatened or endangered species. And they are places with high levels of population growth.

Burak Güneralp, one of the authors of the study, noted that “It’s not all about carbon footprint, which is what mayors and planners typically think about now, but **we need to consider how urban expansion will have implications for other, nonhuman species and the value of these species for present and future generations.**”

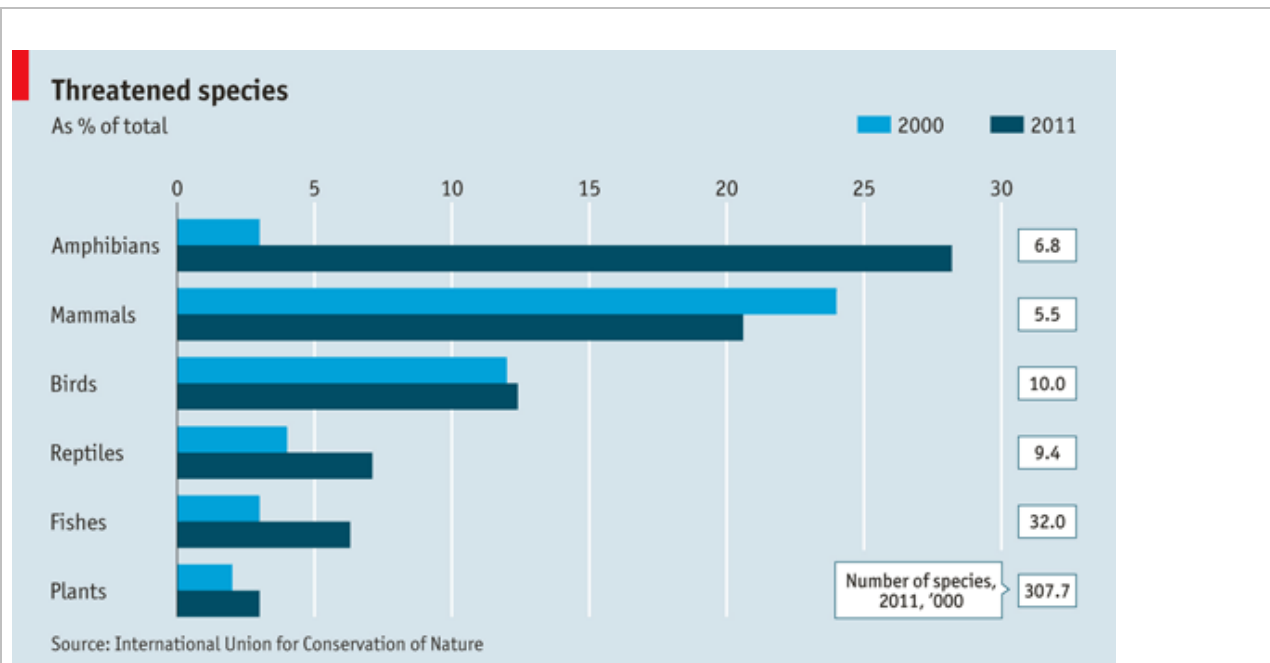


Figure 10: Threatened Species (*Economist* magazine, <http://www.economist.com/blogs/dailychart/2011/06/endangered-species>)

It was once considered radical for slaves to have rights, as well as women. It took many years and a big shift for society to accept rights for people that made up a large percentage of the population. For too long, slaves, people of color, and women were viewed as property of white men. In much the same way, our industrialized and globalized world sees nature as only property.

Rights of Mother Earth

In Bolivia in 2010, a gathering of some 30,000 people came together for the People's Summit on Climate Change and the Rights of Mother Earth. The gathering was hosted by Bolivia's President Evo Morales, who along with many activists, was disappointed and frustrated with the failure of the UN climate negotiations to secure solid commitments to reduce greenhouse gas emissions.

In an effort to turn the discussion around, participants drafted the Universal Declaration of the Rights of Mother Earth and declared April 22 to be International Mother Earth Day.

The declaration puts human beings as part of the global community, not at its center, with responsibilities to the natural system. Cormac Cullinan, author of *Wild Law: A Manifesto for Earth Justice* and a South African lawyer who was instrumental in the drafting of the Declaration, stated that it "recognizes that Earth is an indivisible, living community of inter-related and interdependent beings with inherent rights, and defines fundamental human responsibilities in relation to other beings and to the community as a whole."

Some of the main principles include the following:

- just as human beings have human rights, all other beings also have rights which are specific to their species or kind and appropriate for their role and function within the communities within which they exist;
- the rights of each being are limited by the rights of other beings and any conflict between their rights must be resolved in a way that maintains the integrity, balance and health of Mother Earth;
- every human being is responsible for respecting and living in harmony with Mother Earth;
- ensure that the pursuit of human well-being contributes to the well-being of Mother Earth, now and in the future;
- respect, protect, conserve and where necessary, restore the integrity, of the vital ecological cycles, processes and balances of Mother Earth.

Cullinan wrote, “The Declaration makes it quite clear that if human beings are to claim inherent, inalienable, human rights by virtue of the fact that we exist as humans, all beings must also have inherent, inalienable rights which arise from their existence.” Furthermore, Cullinan said, “It is important to appreciate that the Declaration does not purport to *grant* rights to Nature, but rather to recognize rights which already exist.”

The Universal Declaration of the Rights of Mother Earth has been introduced in the UN's General Assembly. It is meant to be a companion piece to the Universal Declaration on Human Rights (as well as the United Nations Declaration on the Rights of Indigenous Peoples).

MIT's Noam Chomsky has said of the Universal Declaration on the Rights of Mother Earth: “That is a key demand of indigenous communities all over the world. It is ridiculed by sophisticated westerners, but unless we can acquire some of their sensibility, they are likely to have the last laugh – a laugh of grim despair.”

It's too early to say how fast the rights of nature movement is growing, but it is definitely a movement. More communities are looking into how to amend constitutions and introduce laws to codify the rights of the natural world, balancing what is good for humans with what is beneficial for other species and the planet.

Currently, rights of nature has been recognized in a couple of countries and a number of municipalities, affirming the legal right of ecosystems to exist.

Ecuador has included rights of nature in its state constitution, recognizing the legal right of ecosystems to exist. Bolivia has passed a law of Mother Earth, mandating nature legal rights, specifically the rights to life, regeneration, biodiversity, water, clean air, balance, and restoration.

Rights of nature has even been upheld in court. In 2011, a suit was brought against a provincial government in Ecuador, on behalf of the Vilcabamba River. The local government had allowed a road to be widened, which forced rocks and debris into the watershed and caused floods that affected communities living on the banks of the river. As a result of the rights of nature provisions in Ecuador's constitution, the provincial court ruled in favor of nature. The municipality of Loja was forced to halt the project and rehabilitate the area. This was the first successful case defending rights of nature.

Other countries are exploring legal rights for nature and what it could mean for their communities, including Nepal, Italy and Australia.

In the U.S., communities are taking matters into their own hands. Tamaqua Borough, Pennsylvania, which in 2006 passed a law preventing corporations from dumping sludge from coal mining, became the first town to recognize that ecosystems possess enforceable rights. A few years later, the town of Wales, New York, adopted a community rights ordinance that included protections for the right to water, the rights of natural communities, and the right of people to enforce and protect these rights through their municipal government. And in 2010, Pittsburgh, Pennsylvania became the first major U.S. city to pass a law supporting rights of nature.

Overall, more than two dozen municipalities in the U.S. have adopted laws recognizing rights of nature.

And recently, in New Zealand, officials recognized the Whanganui River, the nation's third-longest, as a person when it comes to the law, "in the same way a company is, which will give it rights and interests". Under the agreement the river is given legal status and named two guardians (one from the government and one from the Whanganui River iwi indigenous community) in charge of protecting the river.

Although the final conference document of the UN Summit on Sustainable Development (Rio+20) lacked important language regarding reproductive rights, as discussed earlier in this report, it did include a statement acknowledging the rights of nature:

Article 39. We recognize that the planet Earth and its ecosystems are our home and that Mother Earth is a common expression in a number of countries and regions and we note that some countries recognize the rights of nature in the context of the promotion of sustainable development. We are convinced that in order to achieve a just balance among the economic, social and environment needs of present and future generations, it is necessary to promote harmony with nature.

At the IUCN (International Union for the Conservation of Nature) Congress in September 2012 in South Korea, a motion was adopted to begin the process of recognizing the Rights of Nature as a fundamental element for environmental protection.

Another example noted by the Heinrich Boll Foundation is a pact proposed by IUCN and ICEL (International Council of Environmental Law; both are semi-official organizations that are made up of government institutions) for a new legal foundation for sustainable development. Article 2 of the Draft International Covenant on Environment and Development (a framework for achieving environmental conservation) states: “Nature as a whole and all life forms warrant respect and are to be safeguarded. The integrity of the Earth's ecological systems shall be maintained and where necessary restored.”

Rights of Nature and World Population Growth

Earth does not exist for our species alone. As a world of 7 billion people – projected to hit 9.3 billion by 2050 – demand and expect more from their lives, more ecosystems will become endangered and resources depleted.

Where do human population numbers fit into this picture? Simply, it means that people should live in balance with nature – not exploiting or abusing the planet and its ecosystems, not bringing it into the free market system by privatizing and pricing nature's services (the green economy).

Today we are far from living in balance. And with a rise of middle class consumers, and no slow down in consumption from industrialized nations, it's hard to see how things can get better. The United Nations Environment Programme (UNEP), in its report *Decoupling Natural Resource Use and Environmental Impacts from Economic Growth*, stated that “The remarkable economic and population growth of the 20th century was closely coupled to substantial increases in the extraction and consumption of natural resources, leading to increasingly-damaging negative environmental impact.” (This report recommends that economic growth rate be “decoupled” from the rate of natural resource consumption).

The report also mentioned the impact of population growth: “In absolute terms – with population growth, continuing high levels of consumption in the industrialized countries, and increased demand for material goods, particularly in China, India, Brazil and other quickly-emerging economies – total resource use grew eight-fold, from 6 billion tons in 1900 to 49 billion tons in 2000. It is now estimated at up to 59 billion tons.”

UNEP estimated that in a business as usual scenario, where developed countries maintain their per capita resource consumption and developing countries catch up with them, there will be a tripling of global annual resource extraction by 2050 – approximately 140 billion tons of

minerals, ores, fossil fuels and biomass per year, or 16 tons per capita for a population of 9 billion, by 2050.

One of the top challenges, according to this UNEP report, but fairly obvious to anyone who follows global issues, is that “The wide discrepancies in per person consumption mean different levels of action are required. Poorer nations, likely the first to feel the impacts of resource shortages, must have a chance to improve conditions in the developed world. But if they emulate a profligate style of growth, they not only expose their economies to supply constraints, the planet’s resource bank will go far deeper into the red.”

As world population continues to grow and develop, and most of it consumes more, and often unsustainably, the concept of the planet’s carrying capacity cannot be ignored. Carrying capacity is defined by the Ecological Footprint Network as the maximum population of a species that a given land or marine area *could* support. Many species have easily defined and consistent consumption needs, thereby making carrying capacity relatively easy to define and calculate. For humans, however, carrying capacity estimates require assumptions about future per-person resource consumption, standards of living and “wants” (as distinct from “needs”), productivity of the biosphere, and advances in technology.

According to this same organization, **humanity uses the equivalent of 1.5 planet Earth's today** to provide the resources we use and absorb our waste. This means it now takes the Earth one year and six months to regenerate what people use in a year. Median range UN scenarios suggest that if current population and consumption trends continue, by the 2030s, we will need the equivalent of two Earths to support us. And if all people lived like North Americans, we would need 5 Earth's.

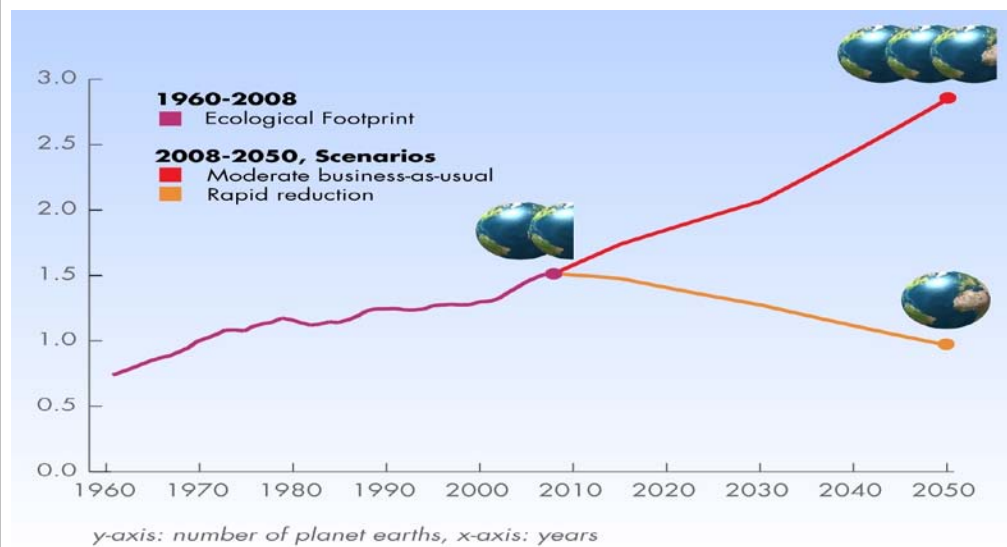


Figure 11: Carrying Capacity (http://www.footprintnetwork.org/images/uploads/Number_of_Planet_Scenarios_2008.JPG)

Turning resources into waste faster than waste can be turned back into resources puts us in global ecological overshoot, which occurs when a population's demand on an ecosystem exceeds the capacity of that ecosystem to regenerate the resources it consumes and absorb its carbon dioxide emissions.

From deforestation to mountaintop removal to depleted oceans, the reasons to pursue a rights of nature legal framework are many. Yet there is one issue where environmental degradation, the number of people, inequity, and economic globalization come to a head and calls out for a new paradigm – the increasing occurrence of land grabs. This is also where the issues of population growth, human rights, and the environment are at odds.

In Tanzania (and many countries in Africa), foreign corporations, individuals, and governments are grabbing land and exploiting its inhabitants by buying or leasing prime agricultural lands. Some investors are driven by fears of future food shortages. Many investors see an opportunity for large agribusinesses. Poor and marginalized people who have lived on these lands for generations are pushed off, often by their own governments, which are eager for foreign investment. The land can be sold for as little as fifty cents per hectare.

There are four million peasant families in Tanzania whose livelihoods rely on small-scale farming, and who stand threatened by plans to develop large-scale commercial agriculture.

The country is known for its vast Serengeti Plains and the largest animal migration in the world. It is also home to 46 million people, estimated to increase to 82 million people by 2050. Despite drawing tourists who come for safaris, the elephants and rhinos they seek are often killed by poachers. Some poachers are driven by grinding poverty, in a country where nearly 70 percent of the Tanzanians live on less than \$1.25 per day. Resource scarcity, especially water, is also looming, as Tanzania's population increases.

Some of these problems are grounded in colonialism, racism, globalization, weak human rights, governmental corruption, and lack of gender equality. Certainly empowering Tanzanian women and families with reproductive rights, healthcare, education and secure livelihoods can and will improve the situation and enable them to overcome some of these challenges.

And what of the native plants and animals that live in or migrate through these lands? Human rights must be respected, but so must rights of other species. Humans depend too much upon the ecosystem to not consider how we disrupt it to the detriment of others. Most land grabs respect neither human rights or nature.

Author and journalist Fred Pearce, in his well-researched book *The Landgrabbers: The New Fight over Who Owns the Planet*, looked at the issue of water in South Sudan, and the geopolitical and environmental conflicts that could arise over this precious resource. South

Sudan is a new country, barely a year old, and desperate for investment, support, and regional allies. Egypt has designs on digging a canal to divert water from the Nile. This would have it bypass the Sudd wetland, one of the world's largest wetlands. The effect of this on the Sudd would be devastating. This canal, Pearce wrote, would be an environmental disaster, killing most of the wetland's wildlife of hippos, crocodiles, and birds.

A study by Oxfam found that international land investors and biofuel producers have taken over land around the world that could feed nearly 1 billion people. This is an issue of equity and rights.

Imagine how this scenario would play out if there were a legal framework for rights of nature? Could governments or corporations be allowed to destroy one of the world's largest wetlands? What are the consequences of this for the ecosystem? And what of the 82 million Egyptians, 87 million Ethiopians, 33 million Sudanese and 9 million South Sudanese and their need for water and food? Many of these people have relied on the Nile and the surrounding environment for sustenance and livelihoods for generations.

Man vs. Nature?

In 2011, National Geographic magazine featured an article by Robert Draper on the Congo and the surrounding Rift Valley. It succinctly framed the problem facing the region: The Rift is rich in rainfall, deep lakes, volcanic soil, and biodiversity. It is also one of the most densely populated places on Earth. A desperate competition for land and resources—and between people and wildlife—has erupted here with unspeakable violence. How can the conflict be stopped? Will there be any room left for the wild?

The violence that has occurred and is still happening is the result of many factors, including ethnicity, poverty, inequity, resource shortages, and as mentioned above, the high population density.

Draper wrote that the Rift Valley is a 920-mile-long geologic crease of highland forests, snowcapped mountains, savannas, chain of lakes, and wetlands is the most fecund and biodiverse region on the African continent, and home to gorillas, okapis, lions, hippos, and elephants, dozens of rare bird and fish species. There is also a bounty of minerals ranging from gold and tin to the key microchip component known as coltan. Despite a fair number of national parks and conservation efforts, many animals are being poached and slaughtered, severely reducing their numbers.

Life is difficult for the locals, especially women. Over her lifetime, a Congolese woman faces a one in 24 chance of dying from complications arising from pregnancy or childbirth. In several interviews with medical workers in Kinshasa, they all cited poverty as the main trigger of maternal deaths. Three-quarters of Congolese women who did not give birth in a health facility cited lack of funds to pay for services as the reason, according to a World Bank survey.

The United Nations Development Programme's Africa Human Development Report 2012 reported that nearly 70 percent of the Democratic Republic of the Congo's 68 million people are classified as undernourished by the United Nation, and 38 percent of children have stunted growth due to malnutrition. Per capita GDP for 2011 was \$210.

Most of the increase in the world's population will be in Sub-Saharan Africa, and much of it will be urban. Can a balance between man and nature be achieved here and in the rest of the world?

The Role of Faith-based Organizations

Many faith-based organizations believe in taking care of our world and could be an important force linking rights of people and the planet.

The Reverend Robert F. Murphy is a Unitarian Universalist minister in Massachusetts who works with environmentalists and human rights advocates. He has been to Ethiopia with the Sierra Club to study family planning and environmental justice issues. The Reverend understands the connection between being stewards of the planet and the need to maintain a sustainable human population.

In Reverend Murphy's words, ...something needs to be said about our companions on planet Earth. Discussions about human population growth often focus on humanity's future. Yet the great religions remind us that the world does not exist for our species alone. Cormorants and turtles have their place in the community of life. As human beings demand more and more, more species will become endangered. Ask the religious question, "What moral responsibility, if any, do human beings have to protect biodiversity?"

In correspondence with Reverend Murphy, he wrote about what he often tells his congregation (which is perhaps something more people need to hear): "The natural world doesn't exist for the sole benefit of one nation, one race, one gender, one religion, or even one species. All of us depend on each other, and all of us, without exception, have a right to be here."

Attorney and author Cormac Cullinan also sees the importance of involving faith-based organizations. In the report *Rights of Nature: Planting the Seeds of Real Change*, he said that many of these organizations recognize the moral and ethical significance of environmental issues. And, "They are likely to play an increasingly influential role in wider social change by promoting the adoption of different values and behavior, and by re-emphasizing the spiritual and sacred dimensions of existence."

The role of faith-based organizations and a coalition of diverse groups is important to counter the argument that this movement is misanthropic. Indeed, much of it is based on indigenous beliefs and is meant to *bring life on Earth into harmony*, which includes more than humans. This is a message that those who care about population growth issues should heed as well.

Looking Forward

It is clear that there needs to be a balance between human rights and nature's rights. Linda Sheehan, of the Earth Law Center, said in the run-up to the Rio+20 negotiations that "Unless we incorporate and safeguard the rights of nature in law, we cannot guarantee human rights or achieve sustainable development." This should be kept in mind, as world population grows past 7 billion with an unknown human impact on the earth.

As corporations, with government acquiescence, continue to plunder the planet for its remaining resources, the people promoting this action may want to keep in mind a quote by philosopher Sir Francis Bacon, who said that “We cannot command nature except by obeying her.” And, it should be added, by aligning ourselves with her for the benefit of our world.

Spotlight: Community Markets for Conservation, Zambia

Community Markets for Conservation (COMACO) is a company in Zambia that is revitalizing local economies and livelihoods and reducing human pressure on wildlife. They use innovative methods based on reducing poverty and protecting both people and nature.

Officially, COMACO promotes income generation, biodiversity conservation, and food security in Zambia’s Luangwa Valley, linking more than 40,000 rural households with sustainable livelihood options. It encourages methods for improving agricultural outputs through “conservation farming”, and provides access to markets.

In the early 2000's, local conservationists were coping with a huge poaching problem in Zambia. They determined to take a different approach to poaching and went directly to the villagers. They learned that the local people suffered from hunger and poverty and turned to poaching to survive. Deforestation was also a problem, as people cut down forests for charcoal. In 2003, the Wildlife Conservation Society introduced a producer group model for local farmers, using market incentives to encourage sustainable agricultural practices.



Hippos in Zambia (photo: COMACO)

COMACO produces IT'S WILD!, a special brand of organic, value-added processed products (such as maize, beans, soybeans, rice, groundnuts and honey) that come from the farmers who live with wildlife. Urban consumers buy these products and in doing so, pay for the cost of rewarding small-scale farmers for supporting conservation.

There is also an emphasis on women farmers, in this country where 52% of registered farmers are female, and a growing number of households are headed by single women.

Economic Rethink

Anyone who believes exponential growth can go on forever in a finite world is either a madman or an economist.

~ *Kenneth Boulding, Economist*

There is a growing concern on the consequences of continued economic growth and population growth in a world of shrinking and finite resources, as well as the impact of such growth on quality of life. Conventional economic wisdom holds that global growth can continue forever, yet the reality of resource constraints is challenging this economic mantra. The world suffers from what author Naomi Klein has dubbed the “expansionist, extractive mindset.”

To move beyond this, countries should adopt more efficient global indicators of human and environmental well-being, reduce consumption, and address reducing poverty and inequality.

This goes beyond resource consumption and shifts the conversation to human well-being. Study after study reflects that even though a nation's gross domestic product (GDP – the value of all goods and services produced in one year) might keep going up, the happiness of its citizens does not increase, once certain needs are met.

GDP is considered central to our economic system. It's the measurement upon which economists and politicians live by. But endless growth of GDP assumes an endless supply of natural resources. It counts the good (e.g. new iPhones, healthcare) and the bad (e.g. oil spills and hurricanes) and the ugly (e.g. political campaign spending) all as increments to celebrate.

Thomas Friedman of the *New York Times*, one of globalization's biggest cheerleaders, penned an editorial called “China Needs Its Own Dream,” in which he expressed concern about economics, consumerism, and environmental limits. Friedman said that if Xi Jinping's (the incoming Chinese leader) dream for his people is just like the American Dream of big cars, big houses and Big Macs, we will need another planet. China's middle class stands at roughly 300 million people today and is expected to grow to 800 million by 2025.

Our obsession with economic growth and consumerism is unsustainable and if we are to pull people out of poverty, end inequality, empower people, and protect the planet, a rethink of growth and a focus on viable alternative economies and economic alternatives should be undertaken.

Bill Ryerson, president of Population Media Center, has said “There are economists that believe that endless population growth is necessary for economic growth. This is a Ponzi scheme form

of economics. It will not last. We must persuade governments to celebrate low fertility rates and declining populations.”

Ecologist William Rees, speaking at the Degrowth in the Americas conference in Montreal, said that there are two unique qualities to humans – capacity for higher intellect, and capacity for forward planning. Rees stressed that “If we fail to use them, we will not have risen to the full challenge of what it means to be human.” Changing our definition of what constitutes growth is one such challenge.

No one knows the number of people the Earth can handle and still maintain a decent quality of life in a sustainable environment. It is clear though that most people around the world are looking to live happier and healthier lives. Pushing a mantra of continuous economic growth isn't realistic due to planetary limits. That is why more economists, policymakers, leaders, academics, and activists are calling for new measures of growth.

Moving Beyond GDP

In January 2012 the United Nations Secretary-General’s High Level Panel on Sustainability released a report that, amongst other things, called upon the international community to measure development beyond GDP and create a new set of indicators.

The idea has been around for some time. Economists such as Joseph Stiglitz, Amartya Sen, and Herman Daly, and politicians such as Nicholas Sarkozy of France and David Cameron of the U.K. have been studying the links between wealth and well-being for many years, concluding that money, beyond a quantity sufficient for basic needs, does not make us happier.

In 2010, German Chancellor Angela Merkel issued a joint statement with the heads of the IMF, the World Bank, the World Trade Organization and others, saying that a key lesson of the recent economic crisis was that “traditional concepts of growth” are inadequate.

In 2011 Reuters published an article on a paper produced by the U.S. Bureau of Economic Analysis (the federal agency that calculates GDP) that proposed new measures for household economic well-being, the economic impact of energy, and other important areas.

Quick Stats:

Average GDP growth rates are projected to slow gradually in the coming decades in China and India. While Africa will remain the poorest continent, it is projected to see the world's highest economic growth rate between 2030 and 2050. (OECD Environmental Outlook to 2050)

In a report by 18 past winners of the Blue Planet Prize – considered the unofficial Nobel Prize for the environment – top scientists, academics and others stated that, “The perpetual growth myth ... promotes the impossible idea that indiscriminate economic growth is the cure for all the

world's problems, while it is actually the disease that is at the root cause of our unsustainable global practices". The report calls for recognizing the limits of GDP and replacing it as a measure of wealth with a measure that integrates economic, environmental, and social dimensions.

Economist Herman Daly has written that no one denies that growth *used* to make us richer. However, Daly asked, "The question is, does growth any longer make us richer, or is it now making us poorer?"

There currently exist viable alternative measures of economic performance, including the Genuine Progress Indicator (which measures how well citizens are doing both economically and socially) and the Happy Planet Index (a composite of three measures – life expectancy at birth, life satisfaction, and ecological footprint). See more on indicators below.

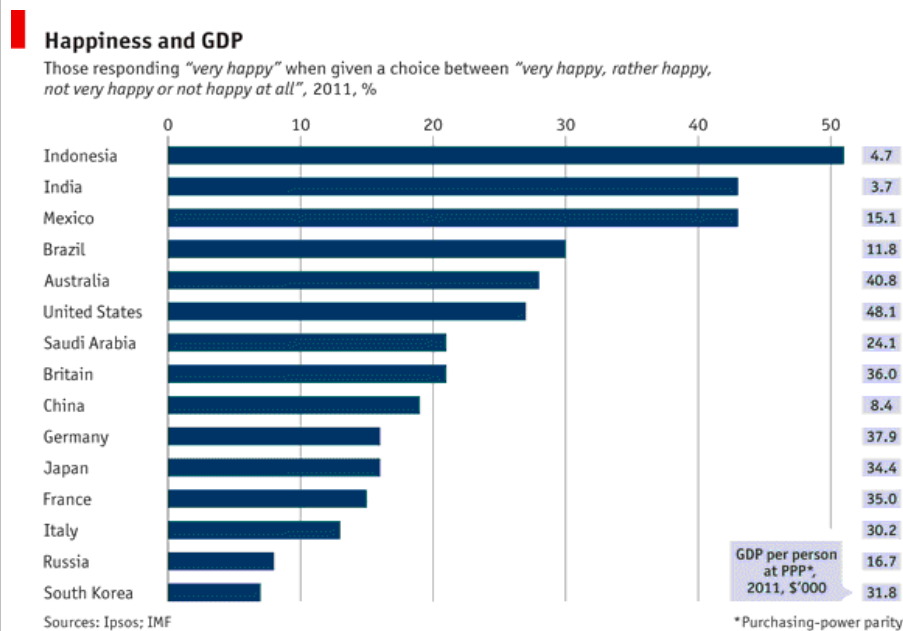


Figure 12 Global Happiness (The Economist, <http://theeconomist.tumblr.com/post/18260059789/daily-chart-which-countries-have-the-happiest>, February 2012)

Key to all of this is reining in overconsumption. Historically a small portion of the planet – the rich, developed countries – have contributed the most to rising greenhouse gas emissions and depletion of resources around the globe. And certainly as developing countries grow, prosper, and move into the middle-class, they want the things that we in the developed world want and have. The challenge is to live in balance with our world and value the things that truly make us happy.

There is a great quote from Professor Tim Jackson, author of *Prosperity Without Growth*, that epitomizes where our society is at today: *the 'insatiability doctrine' – we spend money we don't have, on things we don't need, to make impressions that don't last, on people we don't care about.*

Scientists and academics with the UK Royal Society, in the run-up to Rio+20, listed some key points to consider when talking about measuring economic progress:

- We cannot continue to assume that the planet is an infinite source of resources and an infinite sink for our waste. To do so will condemn us to transgressing critical planetary boundaries. The planet is a necessarily self-sufficient system with finite boundaries and the time has come to think beyond sustainable development to global sustainability within the context of global responsibility.
- More efficient use of resources is necessary but not sufficient to reduce total resource use. Efficiency gains must be used to build the productive base of countries. This can be achieved by redirecting gains, which would otherwise have resulted in increased consumption, towards investments in natural, social and human capital.
- Inequality destabilizes societies and leads to environmental degradation through 'keeping up with the Joneses' and the hedonic treadmill effects. We must strive for a post-consumerism and post-materialist society.

Alternative Economic Indicators

Gross National Happiness

Back in the 1970s, the tiny kingdom of Bhutan introduced an alternative model to GDP. They called it Gross National Happiness (GNH) and believe it to be a better national indicator of progress because it is based on the principles of happiness and well-being.

GNH is a measurement of human quality of life. This concept views economic development not to be an end in itself but as one of many ways to achieve Gross National Happiness.

Though one of the world's poorest countries, Bhutan nevertheless is today ranked in the global top ten of happiest nations (according to [Business Week](#)). In contrast, the United States, with a far higher GDP, comes in at number 16; other rankings put the U.S. in 23rd place or even 114th.

Decades later, the UN unanimously adopted a resolution in 2011 based on the concept of Gross National Happiness. Officially called [UN Resolution 65/309](#), "Happiness: towards a holistic

approach to development”, it recognizes the pursuit of happiness as a fundamental human goal and that gross domestic product (GDP) does not adequately reflect happiness and well-being.

That meeting, called “Happiness and Well-being: Defining a New Economic Paradigm”, happened in April 2012 and brought together some impressive people to talk about not only happiness, but also link it to GDP and our growth-at-all-costs economy and society.

Joining Bhutan’s prime minister Jigmi Thinley in calling for a new economic paradigm and new measures of well-being were Prince Charles, economist Jeffrey Sachs from Columbia University, economist and Nobel laureate Joseph Stiglitz, and UN Secretary- General Ban Ki-moon. Ban told the audience that “Gross National Product ... fails to take into account the social and environmental costs of so-called progress.”

Coinciding with the “Happiness” meeting was the release of the World Happiness Report by economists Sachs, John Helliwell, and Richard Layard. According to the authors, “U.S. GNP per capita has risen by a factor of three since 1960, while measures of average happiness have remained essentially unchanged over the half-century.” This increase in output has come at a high environmental cost, without a corresponding rise in the well-being of Americans.

The report says we can protect the planet and improve the quality of life “by adopting lifestyles and technologies that improve happiness (or life satisfaction) while reducing human damage to the environment.”

Bhutan is inspiring people around the world to take a closer look at what really matters in life. Money and unsustainable economic growth do not equal happiness, nor does it make for a healthy planet. Moving forward on alternative indicators, the words of Bhutanese King Jigme Khesar Namgyel should be a guiding light: “There cannot be enduring peace, prosperity, equality and brotherhood in this world if our aims are so separate and divergent if we do not accept that in the end we are people, all alike, sharing the earth among ourselves and also with other sentient beings, all of whom have an equal role and stake in the state of this planet and its players.”

Genuine Progress Indicator

The Genuine Progress Indicator (GPI) was created as an alternative to GDP. The GPI enables policymakers at the national, state, regional, or local level to measure how well their citizens are doing both economically and socially. The GPI is one of the first alternatives to the GDP to be vetted by the scientific community and used regularly by governmental and nongovernmental organizations worldwide.

The GPI uses three underlying principles for its methodology: 1) account for income inequality; 2) include non-market benefits that are not included in GDP; and 3) identify and deduct

negatives such as environmental degradation, crime, human health effects, and loss of leisure time. The states of Maryland and Vermont are using this economic indicator. England, Italy and China have also applied the GPI at a sub-national level.

Happy Planet Index

This index was developed by the New Economics Foundation (NEF) with a goal of measuring a country's ecological efficiency in delivering human well-being. The index is a composite of three measures: life expectancy at birth, life satisfaction, and ecological footprint.

The Happy Planet Index shows that around the world, high levels of resource consumption do not reliably produce high levels of well-being, and that it is possible to produce high well-being without excessive consumption of the Earth's resources. According to NEF, it is the first ever index to combine environmental impact with well-being to measure the environmental efficiency with which country by country, people live long and happy lives.

The country that currently tops the Happy Planet Index is Costa Rica.

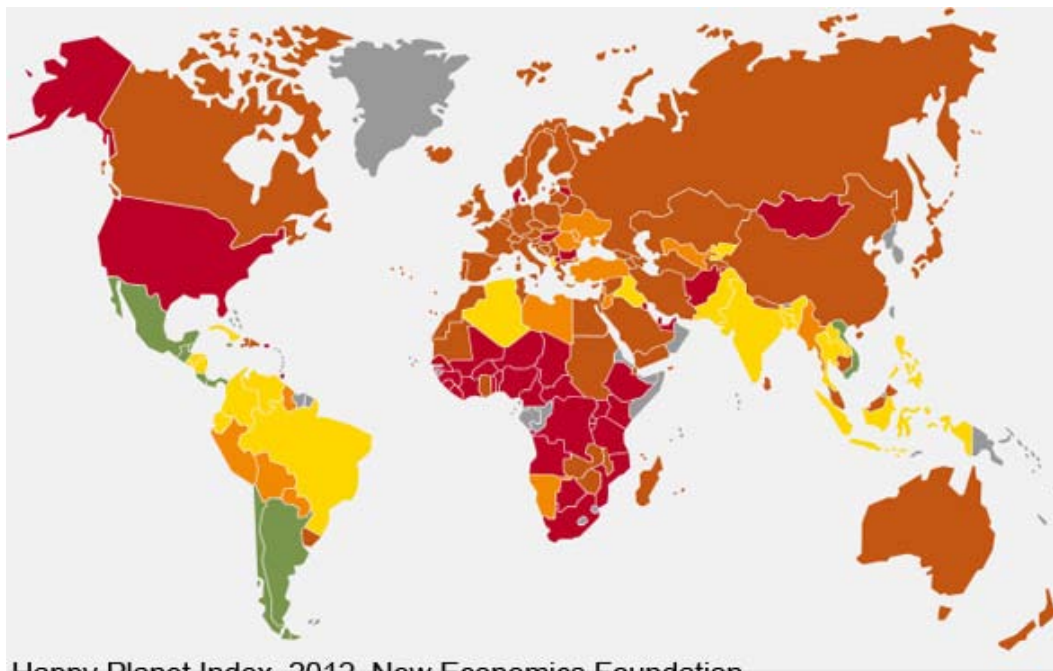


Figure 13: Map of the Happy Planet Index

As reported by HPI, each of the three component measures – life expectancy, experienced well-being and Ecological Footprint – is given a traffic-light score based on thresholds for good

(green), middling (amber) and bad (red) performance. These scores are combined to an expanded six-colour traffic light for the overall HPI score, where, to achieve bright green – the best of the six colours, a country would have to perform well on all three individual components.

The Human Development Index (United Nations Development Programme)

The Human Development Index (HDI) is a summary composite index that measures a country's average achievements in three basic aspects of human development: health, knowledge, and a decent standard of living. It measures poverty, literacy, education, life expectancy, and other factors. It is a standard means of measuring well-being, including child welfare.

Khalid Malik, Head of Human Development with the United Nations Development Programme, noted at Rio+20 that GDP is commodity-centered, while the HDI is human-centered. He cited concern over the issue of inter-generational equity, and said that progress in human development cannot be achieved at the cost of the next generation.

The building blocks of a just measurement, according to Malik, are: 1) connecting current and future choices (one of the main dimensions is environment); 2) a "rights" approach and global responsibility (a right to a fair use of the environment/global resources); and 3) local vs. global thresholds (act both locally and globally).

Inclusive Wealth Index

The Inclusive Wealth Index (IWI) measures the wealth of nations by carrying out a comprehensive analysis of a country's capital assets, including manufactured, human and natural capital, and its corresponding values. It was developed by United Nations University's International Human Dimensions Programme on Global Environmental Change and the United Nations Environment Programme (UNEP) and introduced at Rio+20.

The IWI, which looks beyond the traditional economic and development yardsticks of Gross Domestic Product and the Human Development Index to include a full range of assets such as manufactured, human and natural capital, is meant to show governments the true state of their nation's wealth and the sustainability of its growth.

According to UNEP, when population change is included to look at the IWI on a per-capita basis, almost all countries analyzed experienced significantly lower growth. This negative trend is likely to continue for countries that currently show high population growth, like India, Nigeria and Saudi Arabia, if no measures are taken to increase the capital base or slow down population growth.

Degrowth

The idea of degrowth has been talked about since the 1970s; it has been gaining in popularity since a 2008 meeting in Paris and 2010 in Barcelona. There really isn't one official definition, but most would agree that degrowth may be defined as an equitable down-scaling of production and consumption that increases human well-being and enhances ecological conditions at the local and global level, both in the short and long term. Stabilizing population growth and reducing human impact on the planet is a big part of this.

François Schneider, who is active with the degrowth movement, writes that “This does not mean that degrowth should be sustained indefinitely (which would be absurd) but rather that the process of transition/transformation and the end-state should be sustainable in the sense of being environmentally and socially beneficial. The paradigmatic proposition of degrowth is therefore that human progress without economic growth is possible.”

Erik Assadourian, a senior fellow with the Worldwatch Institute, has analyzed the degrowth movement. Below are a few of the reforms he believes “would augment the global movement toward degrowth in industrialized societies.”

Transform the consumer culture: Shifting societal norms regarding food, housing, and transportation can affect great change. To promote degrowth, governments can help normalize living in smaller homes, leading walkable lifestyles, and eating less food as well as food that is less processed and lower on the food chain. Communities can also facilitate degrowth and increase their resilience by cultivating opportunities for localized formal and informal economic activities, such as small-scale farming, child and elder care, midwifery, and helping to develop essential skills like repair and carpentry.

Distribute tax burdens more equitably: Taxes on the wealthiest sectors of societies, on polluting resources, on advertising, and on financial transactions could discourage excessive economic growth and overconsumption. This new revenue could further fund degrowth initiatives, such as goods-sharing services, or improve existing essential infrastructure (like water and sanitation services and public transit) and help build important sustainability infrastructure like green roofs, renewable energy, and bicycle paths.

Share working hours: If the real average per-capita work week were calculated, counting the unemployed, the underemployed, and people working excessive hours, it would be much shorter. Indeed, in the United Kingdom, this real average work week was 21 hours in 2010, according to the New Economics Foundation. Restructuring the work week to better distribute work hours would help reduce unemployment and poverty, while also significantly improving the quality of life of employees.

In conversations with American colleagues, there has been a tendency to shrink from the term degrowth. It might be that it simply doesn't translate well, as the movement began in France

where it is called *décroissance*. A better term might be “selective growth” (suggested by Foundation Earth's Randy Hayes) or “low growth” (used by Canadian economist Peter Victor). Whatever we might want to call it, the need to redefine growth is imperative.

Ecological Economics

Ecological economics is an area of economics that studies the economic impact of environmental policies and addresses the relationships between ecosystems and economic systems.

Robert Costanza, an ecological economist, states that ecological economics takes a broader perspective and recognizes that there are more things that contribute to human well-being than just the amount of stuff. Positive factors include health and education (human capital), friends and family (social capital), and the contribution of the earth and its biological and physical systems (natural capital). Its goal is to develop a deeper scientific understanding of the complex linkages between human and natural systems, and to use that understanding to develop effective policies that will lead to a world which is ecologically sustainable, has a fair distribution of resources (both between groups and generations of humans and between humans and other species), and efficiently allocates scarce resources including “natural” and “social” capital.

Author David Korten, writing in 2011 about ecological economics, said that “the term economics is derived from the Greek “oikos nomos” which means household management. Ecology is derived from “oikos logos,” which means household organization. Therefore, ecological economics translates into the organization and management of the household. The household writ large is the biosphere—Earth’s extraordinary dynamic, self-organizing evolving band of life, the sum total of all of Earth’s ecosystems.”

Korten continued “If we are to be true to our name, it is our responsibility and calling to develop ecological economics as the primary discipline concerned with the organization and management of the human relationship to the biosphere. It will be a discipline that bears little resemblance to economics as we currently know it.”

As we continue growing on a planet with finite resources, a different way of analyzing and assessing economics is sorely needed, one that encompasses the natural world. Fortunately this idea is catching on around the world.

Steady State Economy

A steady state economy is described as having a stabilized population (birth rates equal death rates) and per capita consumption. The organization Center for a Steady State Economy defines it as an economy with stable or mildly fluctuating size. The term typically refers to a national economy, but it can also be applied to a local, regional, or global economy. An

economy can reach a steady state after a period of growth or after a period of downsizing or degrowth. To be sustainable, a steady state economy may not exceed ecological limits.

Richard Heinberg, author of *The End of Growth*, addressed the question of how do we get from our growth-obsessed economic system to a post-growth world economy. He wrote that economist Herman Daly and other steady-state economy supporters advise the following policies:

- a cap-auction-trade (or cap-and-dividend) system for extraction rights for basic natural resources;
- a shift away from taxing income and toward taxing resource depletion and environmental pollutants (see True Cost Economy below);
- limits on income inequality;
- more flexible work days;
- the adoption of a system of tariffs that allow countries that implement sustainable policies to remain competitive in the global marketplace with countries that don't.

True Cost Economy

The consumption patterns in many product markets would change if the true costs of production were reflected in the prices of the products. The cleanest forms of production are the cheapest. A true cost economy would align our economic system with nature's life support systems.

Consider gasoline. In *Plan B 3.0: Mobilizing to Save Civilization*, Lester Brown wrote that, based on a detailed analysis by the International Center for Technology Assessment, the many indirect costs to society for a gallon of gas would total about \$12 per gallon. These costs include climate change, oil industry tax breaks, oil supply protection, oil industry subsidies, and treatment of auto exhaust-related respiratory illnesses. Brown said "If this external or social cost is added to the roughly \$3 per gallon average price of gas in the United States in early 2007, gas would cost \$15 a gallon!"

One proposal to aid in getting to a true cost economic system is to require the U.S. Securities and Exchange Commission (SEC) to mandate public companies (which must disclose certain financial information) to disclose information on their health and environmental externalities – ecological impact disclosures. An example would be adding pollution costs to the price of goods and services.

There are many other examples of alternative economies worth mentioning, including the Transition Town Movement, the Plentitude Economy, sharing economy, collaborative consumption, and voluntary simplicity, to name a few. The emphasis is on quality of life and environment, not material consumption. The indigenous saying that those of us living today are simply borrowing the Earth from future generations should be what guides us.

The think tank Foundation Earth puts it in perspective:

The rise of a new ecological economic paradigm, including awareness of regional carrying capacities (scale), just distribution, and the “cleanest is cheapest” true-cost pricing system, would be as historically significant as any since the advent of the industrial revolution. This economic system would function more like a barter market system in its allocation of goods and services. Yet, this economic system could halt the shredding of the web of life – a web that supports us all.

It's not that we need to go live in the wilderness or without modern amenities. It is about living responsibly within our means; we can no longer allow ongoing ecological destruction and social injustice for the benefit of the few. We have only one planet to share.

Reflections on Growth

Is economic growth ending? Yes. Is it the end of the world? No. It's just the beginning of the end for a utopian project that started as the dream of miners, manufacturers, bankers, advertisers, salesmen, investors, and inventors, and that has turned to a nightmare for just about everyone else. Trends reach their culmination and wane, and new trends arise. Nature adapts, sometimes with slow and incremental change, sometimes in fury and destruction, and life goes on.

~Richard Heinberg, MuseLetter 242 / July 2012

Economic growth, by promising “more for everyone eventually,” becomes the de facto purpose, the social glue that keeps things from falling apart. What happens when growth becomes uneconomic, increasing costs faster than benefits? How do we know that this is not already the case? If one asks such questions one is told to talk about something else, like space colonies on Mars, or unlimited energy from cold fusion, or geo-engineering, or the wonders of globalization, and to remember that all these glorious purposes require growth now in order to provide still more growth in the future. Growth is good, end of discussion, now shut up!

~Herman Daly, The Daly News, October 22, 2012

But here's the question, how is it possible for 7 billion people (soon to become 9 billion people) to consume the world's resources at the rate we do in the west?

Short answer: it's not.

So isn't it our responsibility in the richest nations to think a bit more closely about our economies. And to ask the question: why do we still need growth when many of our material needs are already met? Couldn't we find some other less materialistic, more meaningful way of living that treads more lightly on the earth?

~Tim Jackson, The UK Guardian, March 18, 2012

Conclusion

When we try to pick out anything by itself, we find it hitched to everything else in the Universe.

~ John Muir, conservationist

The answer isn't to give up our 21st century lifestyles, but to live within our means and planetary limits. Society should act together and move past unsustainable levels of economic growth, focus on the well-being of all, and recognize resource limits. The best way to achieve this and positively address population growth is to support and enhance the rights of women and youth, reduce unsustainable levels of consumption, and consider new (and old) concepts that protect people, nature, and the earth that we share. That's how we build the future we want.

It's obvious that what we've been doing the last few decades isn't working, and certainly not fast enough. The issues must not only be reframed, but approached in a different manner, in order to truly protect our citizens, communities, and environment - including all inhabitants, human and non-human.

By incorporating women's rights and reproductive rights into the population growth arena, it shifted it from being a taboo and negative subject to one of empowerment and improving the lives of all people. Today, we can take it a step further and add in rights of nature for a paradigm-shifting movement focused on how to create positive change and a bright future.

We must find ways to preserve and protect the planet's ecosystems and manage its natural resources in a fair and equitable manner, with an emphasis on human rights, gender equality, economic justice, and environmental justice. There are many people and organizations all over the world working hard to make this happen.

Annie Leonard, an expert in international sustainability and environmental health issues and creator of The Story of Stuff, recently wrote about what makes a successful movement. She raised some worthy points to keep in mind:

Look back at successful movements -- civil rights, anti-Apartheid, the early environmental victories -- and you'll see that three things are needed to make change at the scale we need today.

First, we need a Big Idea of how things could be better -- a morally compelling, ecologically sustainable and socially just idea that will not just make things a little better for a few, but a lot better for everyone. Millions around the world already have that idea: an economy based on the needs of people and the planet, not corporate profit.

Second, we need a commitment to work together. In history's most transformative social movements, people didn't say "I will perfect my individual daily choices," but "We will work together until the problem is solved." Today, it's easier than ever to work together, online and off.

Finally, we need all of us who share that Big Idea to get active. We need to move from a place of shared concern, frustration and fear to a place of engaged citizen action. That's how we build the power to make real change.

The momentum from the London Summit of Family Planning, the impact of civil society at Rio+20, a growing campaign on reproductive rights and the Cairo+20 conference, the many initiatives being proposed and implemented on alternative economic and social frameworks, these are all building commitment. The Big Idea is to break out of our silos and fragmentation and really work together.

For the foreseeable future, human population numbers will grow. How much that will impact our society and global environment remains to be determined. If we focus only on women's rights and economic justice, the planet will suffer. And if we only act on environmental concerns we risk violating human rights, especially those of marginalized women and the poor.

Voluntary family planning services are often referred to as "low hanging fruit" (because it's obvious and more easily accessible): we already know what works, that women want contraceptives, and in the scheme of things, providing this is relatively low cost.

At the *Planet Under Pressure: New Knowledge Towards Solutions* conference, an international gathering of scientists, experts and decision-makers in London in March 2012 to assess the state of the planet and explore solutions to impending global crises, a State of the Planet Declaration was issued. A few of the declaration's most important points include the following:

- "In one lifetime our increasingly interconnected and interdependent economic, social, cultural and political systems have come to place pressures on the environment that may cause fundamental changes in the Earth system and move us beyond safe natural boundaries. But the same interconnectedness provides the potential for solutions: new ideas can form and spread quickly, creating the momentum for the major transformation required for a truly sustainable planet."
- "The defining challenge of our age is to safeguard Earth's natural processes to ensure the well-being of civilization while eradicating poverty, reducing conflict over resources, and supporting human and ecosystem health."

- “As consumption accelerates everywhere and world population rises, it is no longer sufficient to work towards a distant ideal of sustainable development. Global sustainability must become a foundation of society.”

We have bought some time since the Green Revolution. There is much to do. Society has many of the answers and capabilities to improve the global outlook if we enact them today. People need to change and refocus their mindset to what the Planet Under Pressure conference noted, namely that “interconnected issues require interconnected solutions.” Having an open mind and a respect for all lives can go also a long way.

Talking about population growth doesn't have to be a contentious issue. If choice, voluntary measures, improved education and access, inclusivity, interconnectedness, and rights-based and holistic approaches are made the norm, then the world should be able to come together for the sake of women, families, and the planet. Empowering women and striving for universal access to family planning services would result in healthier families, improved gender equality and social equity, more food security, opportunities for better economic livelihoods, poverty reduction, and a more sustainable environment. From there we can move to empower all people, all communities, and nature.

Martin Luther King, Jr. once gave a speech in which he said “We are all caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly. We are made to live together because of the interrelated structure of reality.” When the majority of mankind understands this, then we'll be on our way to creating that better world most of us want and all of nature needs.

Spotlight: Women Deliver 50



The “Women Deliver 50” is a compilation of the 50 most inspiring ideas and solutions that are delivering for girls and women. Check out the website at:

www.womendeliver.org/knowledge-center/publications/women-deliver-50/

About the Author

Suzanne York is Senior Writer with the [Institute for Population Studies](#) in Berkeley, CA, a non-governmental organization that works to solve environmental and social problems by including population size in the discussion.

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She has covered international human rights, globalization and environment issues for more than a decade. As research director with the International Forum on Globalization, Suzanne authored several chapters in *Paradigm Wars: Indigenous Peoples' Resistance to Economic Globalization* and was primary researcher on publications such as *Alternatives to Economic Globalization*. She is also a member of the Sierra Club Global Population and Environment Committee.

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Acknowledgements

Thanks to everyone who gave all kinds of support to this report, especially the Kickstarter supporters!

Morgan Armitage
Joe Bebee
John Billings
Mike Daley
Maria Fotopoulos
Dave Gardner
Jenni Hecker
Sophia Hill
Gwen Hopkins
Mikito Kawasaki
Steven B. Kurtz
Elise Mann
Betty McArdle
Lee Miller
Reverend Robert F. Murphy
George Plumb
Alison Spencer
Abby Stein
Karen Stelter
Jane Turville
Dan Virkstis
Susan Weiss
Searle Whitney
Bernd Wiehle

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