

Quaker Earthcare Witness

Earthcare for Friends

_____Unit 13_____

Friends' Unique Witness on Population Concerns by Stan Becker

Purposes of this unit

1. To give the background facts about rapid population growth in modern times.
2. To describe the link between population numbers and human impact on the environment.
3. To illustrate how Friends have a unique witness on population concerns.
4. To provide resources for further information, reflection, and action.

Sacred texts and other inspirational readings

From everyone to whom much has been given, much will be required; and from the one to whom much has been entrusted, even more will be demanded.

—Luke 12:48

For ever thou art, O Lord; thy word is established in the heaven. Thy faithfulness is to all generations; thous hast established the earth, and it abides. They continue this day according to thine ordinances; for all are thy servants.

—Psalms 119:89–91

*How little from the resources
Unrenewable by man
Cost the things of greatest value:
Wild beauty
Peace
Health and love
Music and all testaments of the spirit.
How simple
Our basic needs:
A little food
Sun, air, water
Shelter, warmth and sleep.
How lightly might the earth
Bear man forever.*

—A wall hanging in William Penn House
in Washington, D.C.

Hymns and songs

For the Beauty of the Earth. *Worship in Song, a Friends Hymnal*, #10.

All People That on Earth Do Dwell. *Worship in Song, a Friends Hymnal*, #3.

All God's Critters Got a Place in the Choir. *Worship in Song, a Friends Hymnal*, #206.

Issue Presentations

_____Part 1_____

My Journey Under the Weight of a Concern

WMEN I WAS BORN there were 2.5 billion persons on planet Earth. Now we are 7.55 billion, and thousands of other species are in decline as human activity disrupts virtually all ecosystems on the planet. The United Nations projects that we will be 10 billion humans on planet Earth by the year 2055. With about 2 billion persons living in poverty today and the health of the earth's ecosystems generally in further decline, it sounds like "less and less for more and more" will be what we can expect. Despite enormous gains with declines in child mortality, malnutrition, infectious diseases and illiteracy and increases in school enrollment, we are still adding about 70 to 80 million persons to the planet every year.

When I was in college at the University of Chicago, Paul Ehrlich published *The Population Bomb*, and rapid population growth came into the collective consciousness. I remember the slogan, "Whatever your cause, it's a lost cause without population control." (This is still true, of course, but rarely heard.)

When I visited Mexico in 1970 I realized the enormity and complexity of the problem of rapid population growth. Ed Duckles of the Friends Center there said it was a major problem, but most people have trouble comprehending it. He told a true population story that enabled people to understand: At that time Mexico City was growing very rapidly, both from high fertility and from migration from rural areas. He stated that just to keep up with the population growth, Mexico City would have to build *a school a day!* It was not doing so.

Mexico City at that time had 7 million persons, and now it has about 18 million persons. And because an adequate number of school buildings does not exist, children go to school in three shifts during the day. That rapid population growth, which incidentally has slowed in more recent years, is still a factor behind the number of undocumented persons who come from Mexico to the U.S.

Later, back at the University of Chicago, I studied demography, and years later I came out a population scientist. Before long (in the 1980s) I was raising the concern among Friends, since at that time neither the American Friends Service Committee (AFSC) nor Friends Committee on National Legislation (FCNL) was actively working on population concerns. AFSC had done so in the 1950s, 1960s, and early 1970s. But at some point it seemed to become "politically incorrect." Certainly women's empowerment programs have been more appealing and indeed are another route to the same end of stabilized population. FCNL historically has not worked much on population concerns because of lack of unity among Friends on abortion and the fact that population groups also happen to be nearly 100 percent "pro-choice." However, the current FCNL policy statement does include this:

"Population pressure and unsustainable consumption threaten the finite planet that living things share. We support government policies that address the impacts of global population and of the inequitable consumption and distribution of resources on poor and vulnerable humans and other species. We call for access to effective, universally available, safe and noncoercive family planning resources in the United States and throughout the world." (Section 3 of Part 4 of FCNL's "The World we Seek")

Therefore it was left to Quaker Earthcare Witness (then FCUN) to spearhead the consideration of population concerns among Friends, which it has done. In addition to its widely distributed pamphlets on population growth, abortion, sexuality, adoption, immigration, and the empowerment of women, it published a well-received collection of writings on population issues called *Population is People* <quakerearthcare.org>. It has regularly sponsored interest groups and worship-sharing on population concerns at Friends' gatherings.

We have much left to do. The matters of abortion, immigration, and sexuality all deserve our attention, and we need to labor with Friends who feel differently from the way we do.

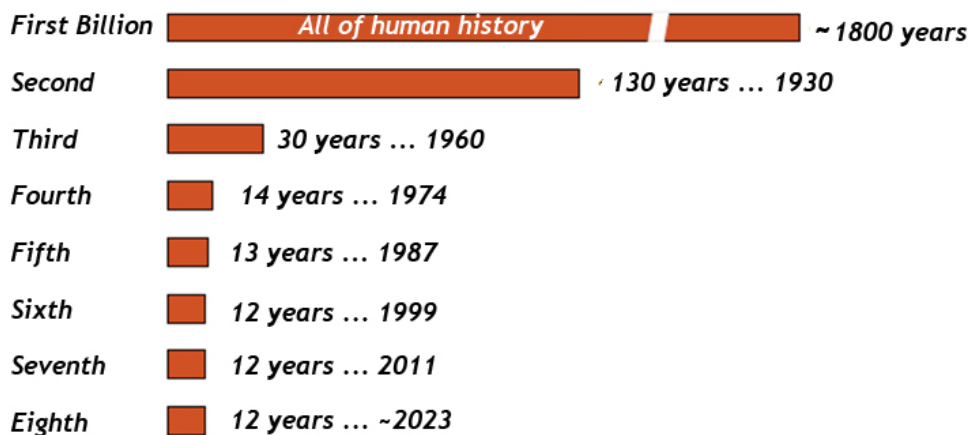
Part 2

A Fateful Doubling

FOR ANY OF US over the age of about 40, we have lived during a time when the world population doubled, something which hopefully will never happen again. Figures 1 and 2 show human population growth over previous centuries up to now and projections to 2050. It took *Homo sapiens* from the time we became a species until 1830 to reach one billion of us on the planet. By 1930, 100 years later, we had added a *second* billion. Then our numbers began to take off. We reached the *third* billion 30 years later in 1960, the *fourth* billion only 14 years later in 1974, the *fifth* billion 13 years later in 1987 and the sixth billion 13 years later in 1999 and the seventh billion in 2011. Finally things are slowing down, but the United Nations demographers predict that we will pass 11 billion before 2100. We are adding 75 to 80 million persons per year to the globe. It is hard to comprehend such large numbers. This growth amounts to about 220,000 more people each day. Just imagine preparing dinner for 220,000 more persons tonight than last night!

Figure 1. World Population

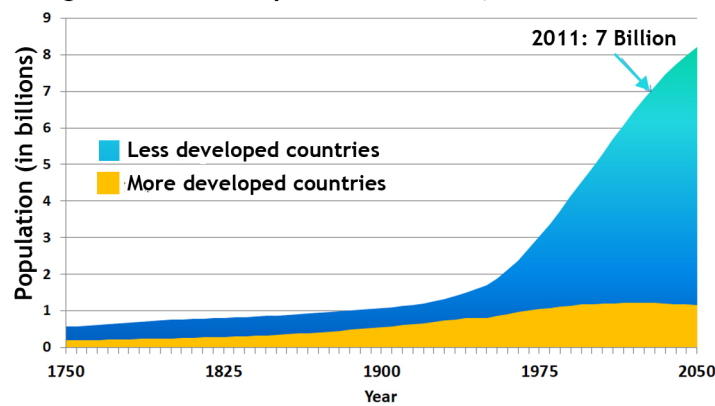
The world is now adding another billion people every 12 years.



Source: United Nations Population Division and Population Reference Bureau estimates and projections
PRB INFORM EMPOWER ADVANCE ...

But as Figure 2 shows, we live in a demographically divided world. The orange area at the bottom of the figure is the population of developed countries. The blue area on the top is the population of developing countries. About 98 percent of population growth is in developing countries. However, in about 93 countries, the average number of children per woman is below (long term) population replacement level of 2.1 children. But populations in most of these countries continue to grow because of past rapid population growth; this phenomenon is called "population momentum." But fertility has been very low for several decades in Europe, and in fact, in 20 countries (Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Czechia, Estonia, Germany, Greece, Hungary, Latvia, Lithuania, Republic of Moldova, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, and Ukraine) population is actually declining. There have been more deaths than births in recent years, though some of these countries are still growing due to immigration.

Figure 2. World Population Growth, 1750-2050



Source: United Nations, *World Population Prospects: The 2004 Revision (medium scenario, 2005, and the Population Reference Bureau*

On the other hand, 45 percent of the world population growth is occurring in just ten countries. India adds about 16 million persons per year; China, 7 million; Nigeria, 5 million; Pakistan, 4 million; and the U.S. and Indonesia are next, adding about 2.4 million each. In the U.S. about half of our population growth is due to more births than deaths and half from immigration (documented and undocumented). Note that the U.S. is the only developed country that is growing so fast.

The most important factor determining the level of population growth is the level of modern contraceptive use in a population. Surprisingly, the decline of the death rate is a relatively minor factor. Contraceptive methods have been invented in developed countries and are beyond the reach of many who want to use them in developing countries because of either lack of access or high cost relative to the per capita income. I was in Burkina Faso once when a case of Norplant kits (the sylistic implants put in the arm that prevent pregnancy for up to 5 years) was arriving from the U.S. Women in Ouagadougou *stood in line overnight* to be able to get one of those kits. This illustrates the demand, as economists call it, to control family size. The assistance that developed countries give to family planning is far below the need, and in the U.S. is only about 0.1 percent (one one thousandth) of military spending. The U.S. government cut off funding to the United Nations Population Fund (UNFPA) under the George W. Bush Administration and the Republican-controlled Congress because UNFPA works in China, where there have been documented coerced abortions and family planning. This action was taken despite the fact that the State Department sent an expert group to China to check on this, and they found no use of UNFPA funds for such activities. Funding was reinstated in the Obama administration, but then stopped again when the Trump administration took over.

But those who oppose abortion should be aggressively supporting contraceptive program because it has been shown that contraception prevents thousands of abortions in poor countries each year. It is estimated from surveys that 100 to 150 million couples in the world want to space the next birth or stop childbearing entirely but do not have access to modern contraception. Don't we have a duty to help these couples?

Some pessimists claim that AIDS or other new infectious agents will take care of the problem of rapid population growth. It is true that the prevalence of HIV is so high in some southern African countries, but even there births have outnumbered deaths. For most of Africa, however, HIV is lower and fertility is very high. For example, in Burkina Faso, the average woman has 5.3 births, HIV prevalence among pregnant women is about seven percent, and the population is projected to grow from 19 million in 2017 to 43 million in 2050. But Burkina Faso and many other African nations are having trouble feeding their current populations!

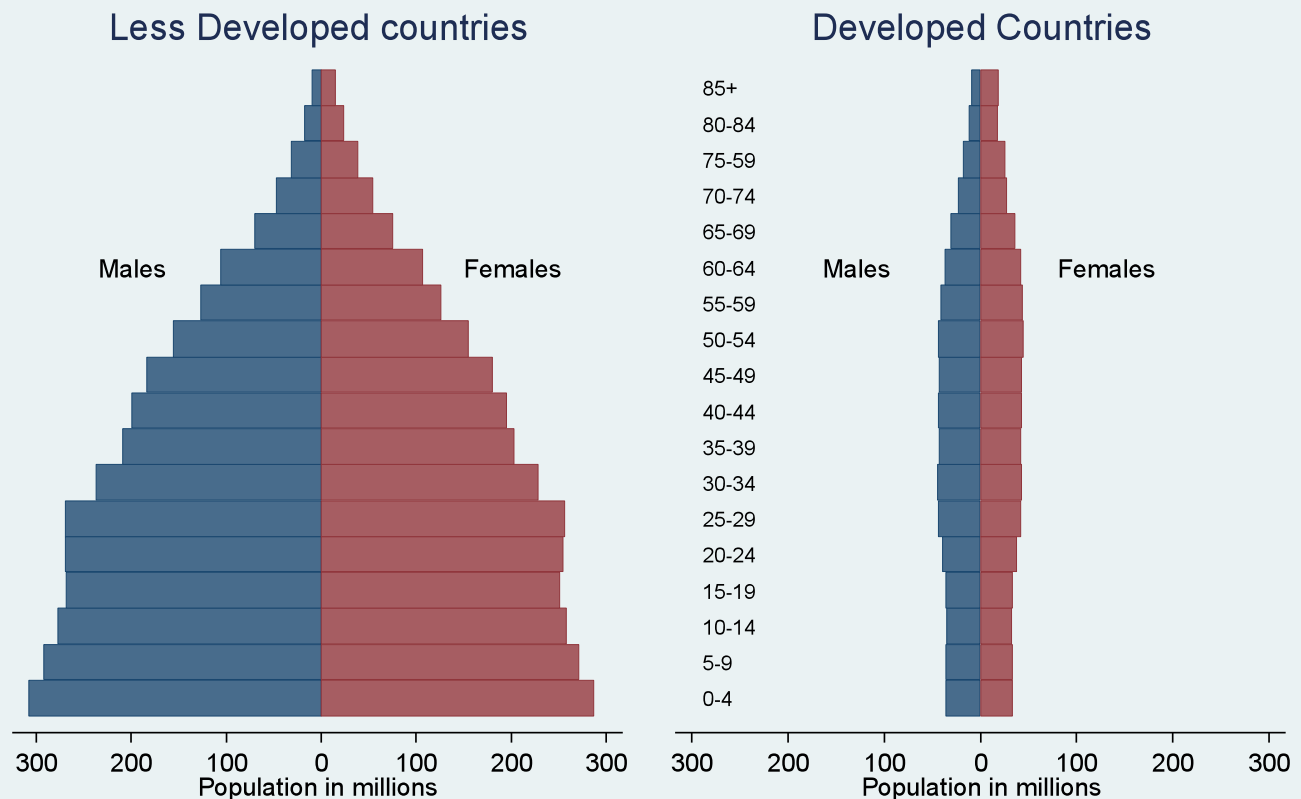
Africa as a whole, with a population of 1.3 billion in 2017, is projected to have a population of 2.5 billion in 2050, despite the devastating AIDS epidemic. Clearly we must intervene to reduce both high death rates from AIDS and other diseases like malaria and high birth rates.

Two other demographic phenomena directly or indirectly affect our lives. In 1900 approximately 10 percent of the world population lived in urban areas. By 1950 this had grown to 30 percent. And about 2013 the percentage passed 50 percent, so half of humanity lives in an urban environment and the percentage continues to increase. Growth of cities in developing countries is very rapid. In 1950 the five largest urban agglomerations in the world were in developed countries: New York, London, Tokyo, Paris, and Moscow.

By 2016 four of the five largest cities were all in developing countries, aside from Tokyo. Delhi, Shanghai, Sao Paulo and Mumbai replace the others above. I lived in Dhaka in 1980 when it had 3 million inhabitants. Now it has 13 million and it is a very different place! Supplying even the basic needs of rapidly growing urban populations in developing countries is a major task.

A SECOND PHENOMENON affecting us is population aging. Not only individuals, but populations get older. Populations can also get younger. Demographers measure a population's age by the median or mean age of persons in the population. An anecdote will illustrate differences in population ages. When I first traveled to Mexico in 1970 it seemed like there were children everywhere. Compared to the U.S. that I knew, this was a valid perception. Specifically, in the U.S. at that time, for every 100 persons, 20 were below the age of 15. In Mexico at that time, for every 100 persons, 50 were below age 15. Figure 3 below shows the population age pyramid for the developing countries and developed countries of the world. Note that the pyramids are drawn to scale.

Age distribution of the world's population, 2015



Source: United Nations Population Division

Friends' Unique Witness on Population Concerns

As you can surmise, the proportion of the population that is above age 65 is much higher in the cylinder-shaped age pyramid of developed countries. As birth rates decline, the pyramid of developing countries slowly comes to resemble that of developed countries, and thus the world population is getting older. This population aging is the basis of the worry about “unfunded pensions” that is a major concern in places like western Europe.

How many people can Earth support? This is where an ecological perspective becomes crucial. We must answer the question with other questions. At what standard of living? With what other species sharing the planet with us? If we all were to live like those now living in the U.S., then scientists estimate that we would have already exceeded the earth's carrying capacity. The mathematics of this are fairly complicated but interesting. The reference is: <footprintnetwork.org/content/images/uploads/National_Footprint_Accounts_Method_Paper_2010.pdf>. There are a number of websites where one can calculate their own footprint on Earth: <earthday.org/Eco-Footprint/Calculator>, <footprintcalculator.org>. If we all used renewable energy and were vegetarians, the planet could probably support 8 or 9 billion people. If we all ate seaweed, the number of people we could feed could go at least to 10 billion! But as human numbers have increased and we have invaded virtually every ecological niche on the planet, we have pushed and are pushing other species to extinction. Large mammals are the most affected because they need lots of land to hunt; it is estimated that 30 to 60 percent of large mammals are threatened with extinction <Tilman et al. 2017. Future threats to biodiversity and pathways to their prevention Nature 546 (7656):73-81>.

--- Part 3 ---

What Friends Can Do

ALL THE ABOVE is very factual and scientific. What can Friends uniquely contribute to this concern about rapid population growth? It turns out that the answer is, quite a lot. For example, many of our co-religionists in the Christian churches are opposed to abortion, as are many Friends. But Friends recognize that the use of contraception can prevent the need for abortion. And studies have shown that making contraception available to unmarried adolescents does not increase their sexual activity but does prevent unwanted pregnancy among those who do become sexually active.

In the U.S. we seem to have a schizophrenic attitude about sexuality. It is glorified in the media, but we have a morality that presumes that our unmarried adolescents will not engage in it. For example, what high schools do you know that make condoms available, even though statistics show that over half of adolescents will have had sexual intercourse by age 18? (*Morbidity and Mortality Weekly* 2016, 65(6):1-174). On the other hand, in western Europe, sexuality is treated more openly, and teens have ready access to contraception. Thus while the sexual activity rates of teens are at about the same level in the U.S. and western Europe, the teen pregnancy rate in the U.S. is about double that of western Europe. In the U.S. we must learn to treat teen sexuality more as a public health matter and less as a moral matter.

Our Quaker Simple Living Testimony is crucial, too. To link our standard of living to population and both to our impact on the planet, ecologists use a formula known as IPAT (Actually $I = P \cdot A \cdot T$), which has four components. I = total human impact on the environment; P = human population numbers; A = average affluence per capita of those humans, and T = technology required to produce that per-capita affluence.

Thus our impact is directly related to both our numbers and our per-capita use of resources (and production of wastes and so on) to produce our standard of living. Let us apply the equation with an example: If the U.S. population grows by 20 percent between 2015 and 2050, as it is projected to do, and we continue to drive gas-powered vehicles and drive the average number of miles that we do now, then carbon dioxide emissions will be 20 percent greater in 2050 than they are now, assuming we drive the same average miles per person. If the average fuel-efficiency of our vehicles were to improve by 17 percentage, the effects cancel each other out and our carbon dioxide output as a nation in 2050 would remain at the level it is now. Also, if we drive 17 percent less in 2050 than now, the same result would be had. Our Simple Living Testimony is a witness in this regard. North American Friends can lead the way in energy conservation, support for clean energy, carpooling, use of public transportation, etc. It also leads us to reflect on how we might stabilize population, because there are obvious limits to simple living.

Sprawl is a similar matter. The Baltimore-Washington area, where I live, is growing by approximately 50,000 persons every year. Either these additional persons will continue to expand human habitation outward and gobble up more forests and turn the land into housing developments, or we will have to build more tall apartment buildings and other more dense housing to accommodate them.

As another example of Friends contributions, we have our Equality Testimony. It is well-known that improving women's schooling and status is key to reducing birth rates. One reason for this is that formal education gives women other opportunities for fulfillment besides childbearing. Let us work for improvements in the status of women throughout the world. Our Equality Testimony also has implications for our position on immigration. Put another way, if we are opposed to discrimination against persons based on skin color, age, sex, and sexual preferences, how can we justify discrimination against persons based on where they happened to be born? As Friends we can hold up the ideal of open borders (as is true within the European Union) knowing that conditions in the world must change before this could become a reality. (See the Quaker Earthcare Witness pamphlet *Immigration in a Crowded World*.)

In summary, it is clear that the population numbers must level off soon or there will be more irreparable damage to the earth's natural systems as well as negative consequences for our own species, such as increased violence as populations fight for scarce resources like water. Without question, our children will live in a more crowded world than we do, with a reduced number of other species. To preserve this beautiful planet for future generations, we must address the problem of rapid growth of our own species.

Some Friends feel that, given the disproportionate use of resources by persons in developed countries, and given our Simple Living Testimony, it is more important for Friends to work on decreasing consumption here rather than on stabilizing population elsewhere. The truth is that it is very important to work on *both* matters, as they are linked, but separate issues. Specifically, our living simply does not necessarily provide the option of modern contraception for women in rural Africa who want to stop bearing children, but our working to increase family planning assistance can.

With regard to Friends' organizations, the American Friends Service Committee (AFSC) does not presently have programs where the main purpose is providing contraceptive services. However, these services are provided in several health projects that AFSC assists. Friends Committee on National Legislation (FCNL) staff cover legislation concerning population as time permits, but it is not a legislative priority as determined by Friends through the priority-setting in their Monthly Meetings. Several Yearly Meetings have approved Minutes on population concerns. These are available on the Quaker Earthcare Witness <quakerearthcare.org>.

For more information

INFORMATION on U.S. population is available through the U.S. Census Bureau <<http://www.census.gov>>. The United Nations population projections and other reports can be found at <<http://www.un.org/esa/population>>. U.S. vital statistics are available at <<http://www.cdc.gov/nchs>>. Also, the Population Reference Bureau has its very useful World Population Data Sheet available for printing at its website <<http://www.prb.org>>. Population Connection (Formerly ZPG) gives a monthly update on legislative matters: <heather@populationconnection.org>.

Questions for reflection

1. What is the spiritual basis of our desire to reproduce? How do we relate this to responsibility for the fate of the earth?
2. What would the world be like if population stabilized at a level closer to 6 billion than to 10 billion.? If relieved of the burden of feeding, clothing, and housing an ever-growing population, what higher goals of human fulfillment would society be able to pursue?
3. How would we limit human population to what the earth can support? Where is the line between (dis)incentives and coercion?
4. Is parenthood a right and if so, does it cease to be a right after some number of births given that population size will only stabilize when the average number of births per woman is two?
5. What are our beliefs about the connection between sexuality and spirituality?
6. What is our position about sexual activity before marriage? Outside of marriage?
7. How does the de-linking of sexuality and childbearing via modern contraceptives affect our beliefs about sexuality?
8. What would have to change in order for it to be feasible to have open borders?
9. Which rights (e.g. voting), if any, can justifiably be denied to immigrants and which cannot?
10. What can we learn from the evolution of the European Union's policy of open international borders (within the Union)?

Illustrative Activities

1. Learning About Population Growth

In _____, the year of your birth, there were _____billion people living on the earth. World population passed 7.55 billion by the middle of 2017, the year of this book's publication. If you lived to the age of 100 years, you would be living in a world populated by _____billion people. (Use the chart on the next page to obtain the population figures.)

World Population Growth During Your Life

Calendar <u>year</u>	Your age <u>(years)</u>	World population <u>(billions)</u>
_____(your birth year)	_____	_____
2017	_____	7.55
_____	100	_____

Questions

- ❖ Have you noticed this rapid population growth?
- ❖ How have you noticed it?
- ❖ What are the positive effects?
- ❖ The negative ones?
- ❖ What do you conclude?
- ❖ What can you do about it?

Earthcare for Friends—A Study Guide for Individuals and Faith Communities

World Population (billions) by Year and 100 Years Later										
Birth year	World population			Birth year	World population			Birth year	World population	
	At birth	At 100			At birth	At 100			At birth	At 100
1930	2.1	8.0		1954	2.7	9.5		1978	4.3	10.1
1931	2.1	8.1		1955	2.8	9.5		1979	4.4	10.2
1932	2.1	8.2		1956	2.8	9.5		1980	4.4	10.2
1933	2.1	8.2		1957	2.9	9.5		1981	4.5	10.2
1934	2.2	8.3		1958	2.9	9.5		1982	4.6	10.2
1935	2.2	8.4		1959	2.9	9.6		1983	4.7	10.2
1936	2.2	8.4		1960	3.0	9.6		1984	4.8	10.2
1937	2.2	8.5		1961	3.1	9.7		1985	4.9	10.2
1938	2.2	8.6		1962	3.2	9.7		1986	4.9	10.2
1939	2.3	8.6		1963	3.2	9.7		1987	5.0	10.2
1940	2.3	8.7		1964	3.3	9.8		1988	5.1	10.2
1941	2.3	8.8		1965	3.4	9.8		1989	5.1	10.2
1942	2.3	8.8		1966	3.4	9.8		1990	5.2	10.2
1943	2.4	8.9		1967	3.5	9.9		1991	5.3	10.2
1944	2.4	9.0		1968	3.6	9.9		1992	5.4	10.3
1945	2.4	9.0		1969	3.6	9.9		1993	5.5	10.3
1946	2.4	9.1		1970	3.7	10.0		1994	5.6	10.3
1947	2.5	9.2		1971	3.8	10.0		1995	5.7	10.4
1948	2.5	9.2		1972	3.8	10.0		1996	5.8	10.4
1949	2.5	9.3		1973	3.9	10.0		1997	5.9	10.4
1950	2.5	9.4		1974	4.0	10.0		1998	6.0	10.5
1951	2.6	9.4		1975	4.1	10.0		1999	6.1	10.5
1952	2.6	9.4	1976	4.1	10.0	2000	6.1	10.5		
1953	2.7	9.4	1977	4.2	10.1	2001	6.2	10.6		

2. Population Resources Exercise

Introduction

THIS SIMULATION EXERCISE can be played with 25 to 75 persons (it is most fun with more people), ages ten and up. Its purposes are:

1. To experience inequality of population distribution and resource distribution throughout the world.
2. To illustrate the difficulties in relationships under this inequality.
3. To gain insight into the imperatives for right sharing of world resources and simple living.
4. To help Friends to explore the spiritual consequences of the unequal distribution of the world's resource.

Population will be represented by participants in the simulation exercise, and resources will be represented by crackers.

Materials needed

- ❖ Making tape or other colored tape, string, or chalk, depending on the floor surface.
- ❖ Crackers (preferable those with sections, so they can be divided easily without going to crumbs), or other foods such as whole peanuts. You will need about twice as many indivisible cracker sections as there are participants in the simulation exercise.
- ❖ Two or three chairs.
- ❖ Small sheets of paper that are numbered from 1 to the maximum number of persons expected.

Time needed for the simulation exercise averages between 45 and 70 minutes.

AS AN OVERVIEW of the game, after preparation of the space on your part (usually best done before participants arrive; it will require 20 to 30 minutes), the components of the exercise include:

- ❖ Explanation (3–5 minutes).
- ❖ Assigning people to continents according to population (5–10 minutes).
- ❖ Distributing crackers (5–10 minutes).
- ❖ Explaining possible interactions between people (3–7 minutes).
- ❖ Playing the game (10–20 minutes).
- ❖ Sharing afterwards (whatever time feels appropriate; minimum 10 minutes).

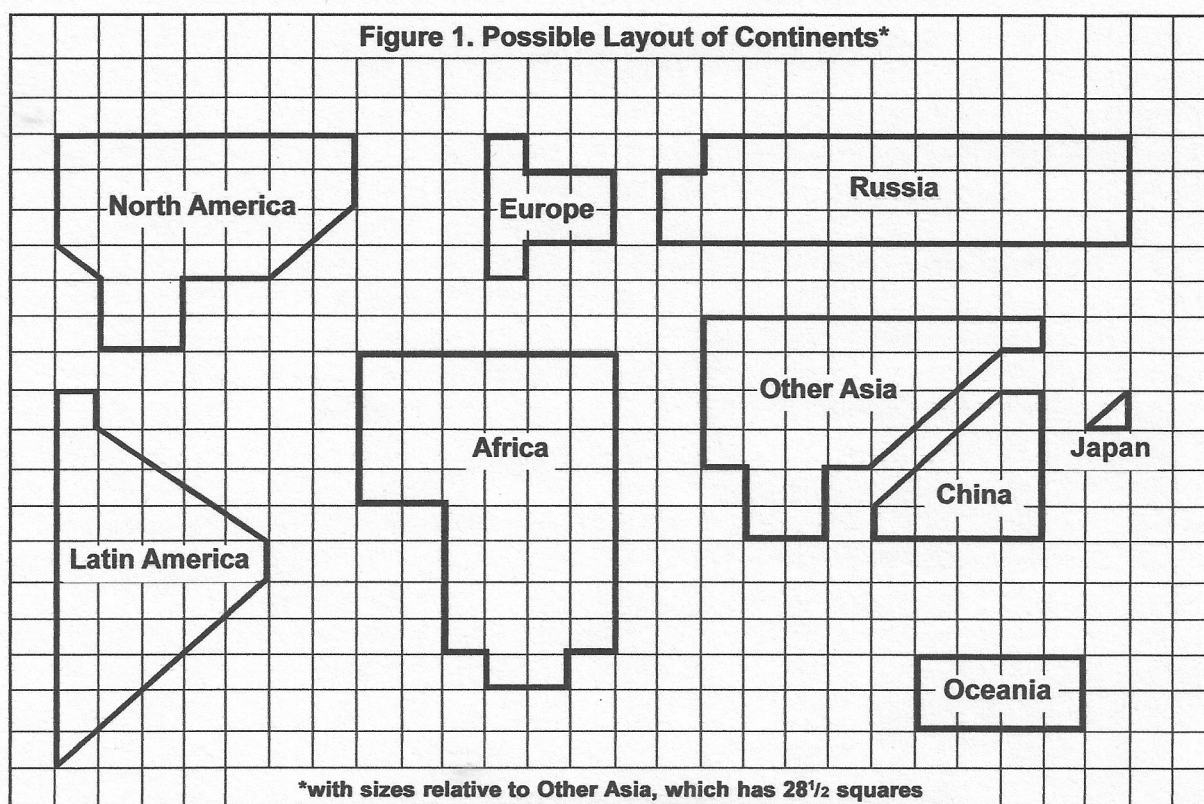
Preparation (20–30 minutes)

THE FIRST THING to do ahead of time is to lay out the world “map” on the floor showing the borders of the continents with the string, tape, or chalk. Tape can outline the continents on an indoor floor; chalk serves on outside hard surfaces; and string wrapped around two-inch nails, driven into short grass or earth, is good for an outside unfinished area.

How many continents to include can depend on the number of persons. For fewer than 50 persons, Oceania (Australia, New Zealand, and ten or so island nations) can be put on the floor and left empty or left off entirely, because its proportion of population of the world would be represented by less than one person until there were 102 persons in the exercise. Antarctica is excluded or drawn and left empty for the same reason. Japan is part of Asia, but since its Gross National Product (GNP) is much higher than that of the rest of Asia (see Table 2), it can be included as a separate geographic entity on the map (with one person) if there are at least 22 persons doing the exercise.

Figure 1 illustrates a possible layout; Japan and Oceania are included.

Other Asia serves as a reference area for laying out the continents. The relative sizes of the other continents are shown in Table 2. If the floor has square tiles, it is easy to get the relative areas of the continents. Otherwise, approximations (e.g. use your feet to measure) will do fine. The extent of realism in the shapes of continents is up to you. Diagonals imply counting half squares or estimating the areas of triangles! To gauge the size you want for Other Asia, consider the number of persons for Other Asia (see below) and that the idea is for persons there to feel crowded; this is accomplished with one to two square feet per person. Thus with, for example 12 persons for Other Asia (34 persons total) and tiles of 12 inches square, an appropriate size for Other Asia would be between 20 and 25 tiles.



Allow enough space between continents so that exits and entries of persons can be seen distinctly.

Another preparatory step is to put the data of Table 1 on a blackboard or other display area, or you may make copies for participants. The latter is very nice, as it gives everyone a summary of all the information.

Introducing the exercise (5–7 min.)

WHEN THE GROUP gathers, explain the purposes of the exercise(above) and then draw attention to the blackboard or handout with data of the world (Table 1) that forms the basis of the game. Give each participant a number.

Assigning people to continents according to population (5–10 min.)

NEXT, assign persons to each continent. Table 3 on page 152 gives the number of persons in each continent depending on the number participating. Table 3 allows you to assign persons to continents easily, using the sequential numbers that everyone has, starting with North America and ending with Other Asia. You can have the persons move to their continents as you assign them or after all have been assigned. It has been found best to assign persons to Other Asia last. Then you might say, “and all the rest of you belong in Other Asia.”

What we have found works well is to have a number (starting with 1 and going to 40 or 60 or some number higher than the number expected) written largely on the top of copies of Table 1 and gives them out sequentially as persons come at the beginning to participate. Then they can study the data while waiting to start and the last sequential number given out allows the leader to identify how many are participating

For elderly Friends with trouble maneuvering, or younger Friends who may not understand what to do, Asia or Africa are the best places (if personal space is a problem, you can allow the person to step off into Madagascar or Sri Lanka).

If couples or families with children are together, the dynamics might be different, depending on whether you put them in the same continent or different continents.

Distributing crackers to continents (and people) according to GNP (5–10 min.)

THE PERSONS are now standing in their continents, and Other Asians are feeling a little crowded. Now things get interesting. Explain that crackers represent Gross National Product, and that you will distribute these according to the actual world distribution. Table 4 shows the distribution of crackers by region according to the number of crackers available. Note that the numbers of crackers per continent are simply multiples of the proportions in Table 1.

A good proportion of total cracker sections to total people is two to one. The reason can be seen by comparing Table 3 and Table 4. Notice that many participants assigned to Asia will not get crackers even with twice as many crackers as people. For example, with 30 participants and 60 crackers, the 10 participants in Other Asia (excluding Japan and China) receive only six crackers in total. The assigned distribution of crackers to people within a continent is according to your ingenuity. Japan was set aside from Asia since it represents 1 percent of Asia's population but has over half of its GNP, i.e. for the 30 participants and 60 crackers one participant is in Japan with 11 crackers, while the ten persons in Other Asia get six crackers! Also, there can be a couple of businessmen, politicians, etc. in Asia who receive several crackers and many who receive a half a cracker or none. Similarly, in Latin America and Africa, some people can be designated as landowners and receive a large portion of the crackers. Also, if there is more than one person in Europe or North America, internal differences in distribution of income can be represented. By whatever logic, you then distribute crackers to each individual in each continent, continent by continent, deliberately with the other participants watching quietly. As an example, Table 5 shows the possible distribution in a exercise with 30 people and 30 crackers. To make it dramatic, start with the distribution of crackers to the rich continents! It is helpful to recite the number of crackers given and your story about who gets how many for what reasons as you go. Note that the personality types who get none or many crackers will also affect how the exercise unfolds.

Table 2: Population (2016), Area, Per capita GNP and Total GNP and percentages of these, by region

Region	Population		Area		GNP (Thousands of US \$)		
	Millions	Percent	Millions Sq Km.	Percent	Per capita	Total	Percent
World	7418	100.0	135.7	100.0	15,415	114,348	100.0
Africa	1203	16.2	30.3	22.3	4802	5777	5.1
L. America	637	8.6		13.1	14,512	9244	8.2
Asia							
China	1378	18.6	9.6	7.1	14,160	19,512.00	17.2
Japan	125	1.7	0.4	0.3	38,870	4,859	4.3
Other Asia	2934	39.6	21.8	16.1	9794	28,735	25.3
N. America	360	4.9	24.4	18	55179	19,864	17.5
Europe							
Russia	144	1.9	17.0	12.5	23,790	3,426	3.0
Other Europe	596	8.0	5.9	4.3	34,745	20,708	18.3
Oceania	40	0.5	8.5	6.3	32,456	1,298	1.1

Source: Population Reference Bureau Data Sheet 2016

Table 3. Exact Distribution of persons on the globe by continent, for 25 to 50 numbered participants

	Groupings of players by their assigned numbers								
World (group size)	North Amer.	Latin Amer.	Europe	Russia	Africa	Oceania	Japan	China	Other Asia
25	1	2, 3	4, 5	6	7-9	-	-	10-14	15-25
26	1	2, 3	4, 5	6	7-10	-	11	12-16	17-26
27	1	2, 3	4, 5	6	7-10	-	11	12-17	18-27
28	1	2, 3	4-6	7	8-11	-	12	13-18	19-28
29	1	2, 3	4-6	7	8-11	-	12	13-18	19-29
30	1,2	3-5	6-8	9	10-13	-	14	15-20	21-30
31	1,2	3-5	6-8	9	10-13	-	14	15-20	21-31
32	1,2	3-5	6-8	9	10-13	-	14	15-21	22-32
33	1,2	3-5	6-8	9	10-13	-	14	15-21	22-33
34	1,2	3-5	6-8	9	10-14	-	15	16-22	23-34
35	1,2	3-5	6-8	9	10-14	-	15	16-22	23-35
36	1,2	3-5	6-8	9	10-14	-	15	16-23	24-36
37	1,2	3-5	6-8	9	10-14	-	15	16-23	24-37
38	1,2	3-5	6-8	9	10-14	-	15	16-23	24-38
39	1,2	3-5	6-9	10	11-15	-	16	17-24	25-39
40	1,2	3-5	6-9	10	11-15	-	16	17-24	25-40
41	1,2	3-6	7-10	11	12-17	-	18	19-26	27-41
42	1,2	3-6	7-10	11	12-17	-	18	19-27	28-42
43	1,2	3-6	7-10	11	12-17	-	18	19-27	28-43
44	1,2	3-6	7-10	11	12-17	-	18	19-27	28-44
45	1,2	3-6	7-10	11	12-17	-	18	19-27	28-45
46	1,2	3-6	7-10	11	12-17	-	18	19-27	28-46
47	1,2	3-6	7-10	11	12-17	-	18	19-28	29-47
48	1,2	3-6	7-11	12	13-18	-	19	20-29	30-48
49	1,2	3-7	8-12	13	14-19	-	20	21-30	31-49

When Japan and/or Oceania are drawn but there are too few people participating to have a person representing the population in one or both, then a decision is necessary about what to do with crackers that would go to that/those places. One possibility is to place the allotted crackers in the area (for immigrants to get later). Another possibility is to allocate them to Asia or in the case of Japan, to capitalist competitors in North America or Europe. A third possibility is to keep those crackers out of the exercise entirely with or without mentioning it to the group.

A large easy chair for one North American and a folding chair if there is a second North American (and a folding chair in Japan) may be used as additional props to illustrate the unequal distribution of wealth.

Explaining the objectives/rules (3–7 minutes)

WITH THE PEOPLE and crackers distributed, it remains merely to explain the possible interactions (or in exercise jargon, the rules). It is probably best to read the rules, perhaps twice; you might also want to have them posted on a black-board or posterboard. These can be revised, or other “rules” invented.

The rules

A MAJOR OBJECTIVE is that those without food are highly motivated to get food.

Regarding food, the rules are:

1. Food (e.g. the crackers) can be treated like money.
2. Etiquette is that food is not taken but given voluntarily. (In the real world, of course, one may break etiquette.)
3. People with food can employ others without food if it is in their interest.

Regarding movement between continents, the rules are:

- [illegible]

Once the rules have been explained, then explain that each person needs to take stock of his/her position (in other words, where does s/he live, and how many crackers does s/he have?) and that of his/her neighbors, and decide what role to play. It may be good to set aside a couple of minutes of silence for this. Also, you can hint that Other Asians might want to work in cooperatives or some other way to share resources.

As examples of interactions, in past games there has been bargaining for safari trips, Latin American servants in the U.S. who try to bring in their relatives, African students training in Moscow, and a North American capitalist who relocated production plants to Asia for cheaper labor.

Doing the exercise: Go! (10–20 min.)

AFTER the guidelines are explained and participants have had time to take stock of their situations, let the exercise unfold for ten to twenty minutes. You can now merely watch and encourage those with trouble getting into a role, or help stimulate interaction (e.g. cooperatives) if it seems lacking. Hopefully, you have created enough space between continents so that exits and entries of persons can be seen as distinct moves.

Be sure there is enough time for everyone to develop some role (at least ten minutes is needed for this). Leaders will emerge. You need to call time at the end, and you might give a two- to three-minute warning so there is time to complete “skits.”

Table 4. Distribution of crackers for each region, by number of crackers

[illegible]

Table 5. Possible distribution of 30 crackers with 30 people

Summary	Number of people	Number of crackers	
North America	2	7	
Latin America	3	2	
Europe	3	7	
Russia	1	1	
Africa	4	1	
Oceania	0	0	
Japan	1	2	
China	6	4	
Other Asia	10	6	
Detail	Individual person	No. of crackers	Possible story
North America	1	6	CEO
	2	1	Immigrant farmworker
Latin America	3	1.5	Middle class
	4	0.5	Worker
	5	0	Landless
Europe	6	4	Government official
	7	2	Middle class
	8	1	Recent immigrant
Rusia	9	1	--
Africa	10	1	Government official
	11	0	Famine victim
	12	0	Victim of civil war
	13	0	Landless
Oceania	--	--	--
Japan	14	2	Businessman
China	15	2	Owner of factor
	16	1	Trader
	17	1	Government official
	18-20	0	Landless
Other Asia	21	4	Saudi oilman
	22	1	Government official
	23	1	Singapore merchant

Afterwards (minimum 10 min.)

ONE FORMAT for sharing about the experience is to have people sit in a circle and have each person around the circle share what role s/he played, what interactions s/he had or saw, and how it felt. If there are more than 30 persons, splitting into two or three groups may make more sense. This may be followed by worship-sharing. An alternative, especially if time is short, is to go into worship-sharing immediately.

Some Friends are unfamiliar with worship-sharing, so it needs explaining. In worship-sharing, as in worship, messages are surrounded by silence; persons speak from personal experience and do not question or debate what others have shared; and persons speak only once, unless everyone has spoken who wishes to speak (which the facilitators can determine).

As a follow-up, suggest that each person think more about this experience and its meaning. The flyer *Friends' Witness on Rapid Population Growth* is available from Quaker Earthcare Witness. Multiple copies of the pamphlet are available from Quaker Earthcare Witness. Participants can be given copies and encouraged specifically to consider the sections entitled "Questions" and "What Can We Do?"

For more information about population concerns, contact Quaker Earthcare Witness to order: *Leading a Friendly Session on Population Concerns*, a guide for facilitators, prepared by Stan Becker and the Population Concerns Committee of Quaker Earthcare Witness, \$0.75 per copy.

Prayers and responsive readings

Dear Holy One,

We thank you for the gift of life. We understand that this gift brings with it the desire of every species to thrive through reproducing its own kind. We know that it has been your will for the earth to be filled with myriad forms of life in one inter-dependent community of life. You have also granted us the gift of knowledge, which now tells us that the human species has reproduced itself at such a rapid rate that we and our activities are threatening the ability of other species to survive.

Guide us in your wisdom, the ability to act with both intelligence and compassion to restore our balance with the rest of creation, both in our numbers and in the resources that we consume. Guide us as the way opens to peaceful resolution of the paradoxes and disagreements that hinder us from acting in unity. We need your help. We are listening. Amen.

Creator, who gave us the wonder of life, we pray for guidance and understanding. Hear our prayer.

We see each new child as a gift, with the potential to do your good work. Yet our God-given intelligence struggles with issues of over-population. We pray for understanding.

Hear our prayer.

We have gone forth and multiplied and filled the earth with our kind and now your other gifts of life, the spotted owl, the wolf, the chocolate lily, are losing their environments and disappearing. The precious, interconnected web of all living things and the systems that nurture them are not able to support so many humans. How do we keep your covenant? We pray for wisdom and guidance as we speak to these issues.

Lord, hear our prayer.

We feel compassion for those countries affected by rapid population growth, especially those with issues of poverty, pandemics, and hungry children. We pray for solutions to this human suffering.

Sophia, hear our prayer.

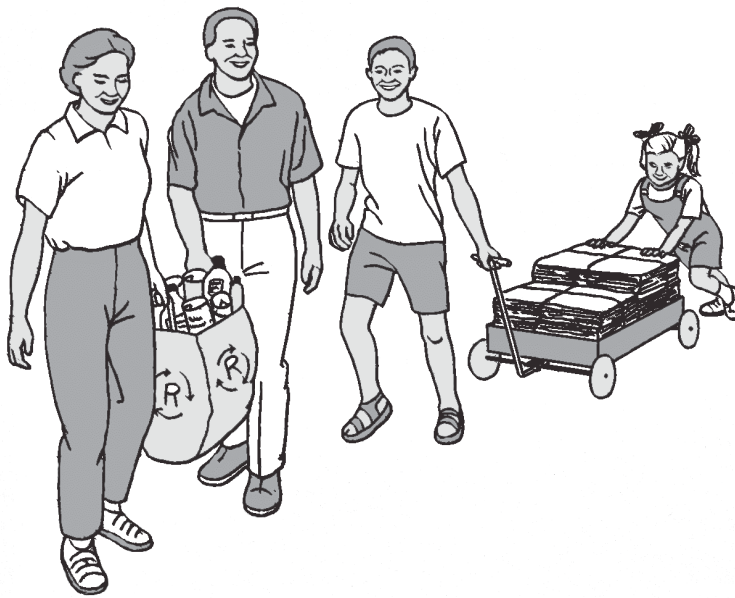
We seek understanding for those who oppose family planning and for those who hunger for children yet cannot conceive. We pray for wisdom as we struggle with these complicated questions.

Great Spirit, hear our prayer.

We pray that future generations are able to enjoy freedom, beauty, health, community, education, personal achievement, and serene open spaces for the fulfillment of their souls.

Almighty, hear our prayer.

REDUCE REUSE RECYCLE



References: Unit 13. Friends' Unique Witness on Population Concerns

- Becker, Stan et al, eds. 2000. *Population Is People, A Friends Perspective*. Quaker Earthcare Witness, Burlington, Vt.
- Chapman, Audrey R. et al. 2000. *Consumption, Population, and Sustainability: Perspectives from Science and Religion*. Island Press, Washington, D.C.
- Hinrichsen, D. and B. Robey. Population and the Environment: The Global Challenge *Population Reports Series M*, No. 15. Johns Hopkins University. Baltimore, Md.
Available at <http://www.infoforhealth.org/pr/m15edsum.shtml>.
- Lisinger, K.M., K.M. Schmitt and Lorch R. Pnadya. 2002. *Six Billion and Counting: Population and Food Security in the 21st Century*. International Food Policy Research Institute, Washington, D.C.

QEW Trifolds:

- ❖ *A Friends' Witness on Population*, 2015.
- ❖ *A Witness on Sexuality for Friends*, 2015.
- ❖ *Toward Taking Away the Occasion of Abortion*, 2015.
- ❖ *Seeking Clearness on Child-bearing in a Crowded World*, 2015.
- ❖ *Immigration in a Crowded World*, 2015.
- ❖ *Empowering Women: The Link to Population*, 2015.
- ❖ *Adoption: An Option for Friends*, 2018.

Other resources:

- ❖ Information on U.S. population is available through the U.S. Census Bureau <census.gov>.
- ❖ The United Nations population projections and other reports can be found at <un.org/esa/population>. If you click on "Estimates and Projections" and then "Interactive data" you can find population information on any country or region of the world.
- ❖ U.S. vital statistics are available at <cdc.gov/nchs>. For birth and death data for example: <cdc.gov/nchs/products/nvsr.htm>

The Population Reference Bureau has its very useful World Population Data Sheet <prb.org>.