Solutions through Reproductive Health: Why Family Planning Can Help Solve Climate Change
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We developed this PowerPoint to help clarify some of the main connections between population and climate change. We believe that including population dynamics into climate-related education and advocacy will help pinpoint further solutions that will make our climate interventions more successful — such as access to reproductive health care, family planning options, girls’ education, and gender equity.

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“Fundamentally, the twenty-first century presents two equally urgent imperatives: to lessen human impact on the environment and to reduce the glaring inequalities that divide humanity. Slowing population growth is central to both.”

Outline

- Intro
- Population and Climate Vulnerability
  - Country Profile: Bangladesh
- Future Population Projections
- Family Planning and Climate Change
- Unmet Need for Family Planning
- Conclusions
Intro

- Rapid population growth hinders sustainable development and exposes more people to climate impacts.
- Increasing access to voluntary family planning services is a human rights-based and cost-effective approach to addressing climate change.
- Family planning is an integral part of global sustainable development strategies, and yields both social and environmental benefits to society.

Source: IPPF 2016
Population and Climate Vulnerability

- Globally, rapid population growth compounds the threats posed by climate change.

- High levels of unmet family planning needs in low-income countries worsen pressures already felt by rapid population growth, including:
  - resource depletion
  - low economic growth
  - less access to resources like education and health care
  - low status of women
  - overall health
Population and Climate Vulnerability

- Rapid population growth slows global sustainable development.
  - The 47 least developed countries are the fastest growing. Many are projected to double in population between 2019 and 2050 – increasing strain on already scarce resources and challenging improvements in health and economic growth.

Source: UN Population Prospects 2019
Belas, Angola. Photo by Hermenegildo Sebastiao
Many least developed countries will continue to experience rapid population growth between 2019 and 2050
Population and Climate Vulnerability

• Sub-Saharan Africa is expected to add over 1 billion people by 2050, which would account for over half of the projected global population growth between now and 2050.

• Two-thirds of the population growth projected through 2050 would occur even if childbearing in high fertility countries were to immediately fall to replacement level.
  • This is because these countries have a large population of children and youth who will reach reproductive age over the next few decades.

Source: UN Population Prospects 2019
Population Growth by Continent 2017-2100
Population and Climate Vulnerability

• Low-income populations are generally the most vulnerable to climate change because there is less capacity to prepare, respond, or adapt to things like changing weather patterns, rising sea levels, or extreme weather events.

  • Heavy reliance on local and regional natural resources for food security and livelihoods is also common, as well as:
    • Limited alternative employment opportunities
    • Increased financial insecurity

Source: UN Population Prospects 2019
Nha Trang, Vietnam. Photo by Jordan Opel on Unsplash
Population and Climate Vulnerability

- Due to geography (e.g. tropical, high altitude, land-locked), many of the world’s least developed countries are already prone to:
  - drought
  - flooding
  - natural disasters
- Climate change will increase the frequency and intensity of these adverse weather events.

Source: UN Population Prospects 2019
Country Profile: Bangladesh

- Bangladesh is about the size of New York, but has a population of around 164.7 million people — making it the 8th most populous country in the world and encompassing 2% of the global population.

- The country is expected to exceed 200 million people by 2045, according to the UN’s medium variant projection.

Source: UN Population Prospects 2019
Dhaka, Bangladesh. Photo by Ahmed Hasan on Unsplash
Country Profile: Bangladesh

New York
20 million

Bangladesh
164.7 million

Source: UN Population Prospects 2019
Climate Vulnerability in Bangladesh

- Bangladesh’s population has doubled over the last 35 years, but its CO$_2$ emissions represent only 0.19% of the global total.
  - Yet, climate change poses the biggest threat to the country, as increasing temperatures and resulting rainfalls impact rice and wheat production.

Source: Mondal, S. 2018
Dhaka, Bangladesh. Photo by Niloy Biswas on Unsplash
Climate Vulnerability in Bangladesh

• Bangladesh is particularly vulnerable to climate change because of its low elevation, high population density and unstable infrastructure.

• The country is already enduring the effects of sea level rise, intense and irregular storms, cyclones, drought, erosion, landslides, flooding, and salinization, all as a result of climate change.

Source: Mondal, S. 2018
Photo: Dhaka, Bangladesh
Climate Vulnerability in Bangladesh

- Two-thirds of Bangladesh lives on the coast, where tidal flooding caused by sea level rise is increasing. By 2050, up to 18 million people may be forced to move because of sea level rise alone.

- Scientists predict a 50 cm rise in sea level by 2050, which will cause the country to lose about 11% of its land and could affect more than 15 million people.

- Some estimates predict that by 2050, one in seven people will be displaced by climate change.

Source: Environmental Justice Foundation 2020
Asham Bosti, Bangladesh. Photo by Md Efthakhar Ul Alam
Climate Vulnerability in Bangladesh

• The agriculture industry contributes 56% of Bangladesh's GDP and is the main source of income for the country’s population.

• Crop damage resulting from sea level rise is causing large yield losses and price reductions.

Source: Mondal, S. 2018
Photo by Foto Murthy on Unsplash
Climate Vulnerability in Bangladesh

- Population pressures are increasing stress on agricultural production required to meet increasing food demands.

- At the same time, the processes involved in agricultural production contribute the most amount of greenhouse gas emissions, including carbon dioxide, methane, and nitrous oxide.

- About 40% of Bangladesh’s overall emissions come from its agriculture industry, making it the most significant contributor to the country’s growing emissions.

Source: Mondal, S. 2018
Photo by Rajesh Ram on Unsplash
Population and Climate Vulnerability

- Rapid population growth will also perpetuate large-scale, in-country migration, as people are forced to migrate as a result of natural disasters caused by climate change.

- Some estimates project that more than 143 million people will be forced to migrate by 2050 because of crop failure, water scarcity, and sea level rise.

- The World Bank (2018) reports that the majority of the coming migration will shift populations from rural to urban areas.
  - Large-scale migration is set to take place in Sub-Saharan Africa, South Asia, and Latin America — three places that represent over 55% of the developing world’s populations.

Source: World Bank Group, Groundswell: Preparing for Internal Climate Migration 2018
Internal Climate Migration Scenarios by 2050

“Plausible” internal climate migration scenarios by 2050 across Sub-Saharan Africa, South Asia, and Latin America under three scenarios: the “pessimistic (Reference)” scenario (yellow), the “more inclusive development” scenario (blue) and the “more climate-friendly” scenario (green). Vertical lines represent the 95th percentile confidence interval. Source: World Bank 2018.
Population and Climate Vulnerability

- Migration to large cities will increase climate vulnerability.
  - One-third of the world’s population lives within 60 miles of shoreline.
  - 13 of the world’s 20 largest cities are coastal.

Sugarloaf Mountain, Rio de Janeiro, Brazil. Photo by Julianna Kaiser on Unsplash
Population and Climate Vulnerability

- In the next 20 years, sea level rise will begin submerging a large area of the Nile Delta which facilitates large-scale agricultural production.

- Agricultural production in India and Sub-Saharan Africa face projected losses of 40% or greater by 2080 because of climate change.

Source: Center for Global Development 2010
https://desdemonadespair.net/2010/01/nile-delta-agriculture-falls-prey-to.html
Future Population Growth

The world’s population continues to grow albeit at a slower pace than any time since 1950.

The UN’s medium variant projects that the world will host between 9.4 and 12.7 billion people in 2100.

Reaching the lower projection will require large-scale investments in family planning services.

Source: UN Population Prospects 2019
Population and Climate Change

• Slowing population growth through rights-based, voluntary family planning services is one important solution to climate change that meets both human rights agendas as well as sustainability efforts.

• Other solutions include:
  • Technological innovations
  • Shift to renewable energy sources
  • Lifestyle changes and reduced per capita consumption
  • Fundamental changes to global economic systems
  • Others?
Solutions Through Reproductive Health

• When education levels rise for women and girls, they gain political and economic power.
  • Higher levels of education afford more options for sustained employment and help increase livelihoods.
    • More resources become available to help women and girls choose when and how to start a family.
    • Women who are educated tend statistically to have fewer, healthier children.

• Low-income populations face the biggest barriers to getting an education and family planning.
  • This is largely because of limitations from cost, stigma, or policies.
Top 5 solutions to climate change

54.4
Tropical Forest Restoration

87.4
Reduced Food Waste

85.4*
Health and Education
(FAMILY PLANNING & EDUCATING GIRLS)

57.7
Refrigerant Management

65.0
Plant-rich Diets

*CO₂-equivalent reduction by 2050 (GT)

Source: The Drawdown Review 2020
The rankings shown here are based on projected emissions impact globally. The relative importance of a given solution can differ significantly depending on context and particular ecological, economic, political, or social conditions.

<table>
<thead>
<tr>
<th>Overall Ranking</th>
<th>Solution</th>
<th>TOTAL CO₂-eq (GT) Reduced/Sequestered (2020-2050)</th>
<th>Net First Cost To implement solution (Billion $US)</th>
<th>Net Lifetime Cost To operate solution (Billion $US)</th>
<th>Net Lifetime Profit other implementation &amp; operation (Billion $US)</th>
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<tr>
<td>1</td>
<td>Reduced Food Waste</td>
<td>87.4</td>
<td>–</td>
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<tr>
<td>2</td>
<td>Health and Education</td>
<td>85.4</td>
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<td>3</td>
<td>Plant-Rich Diets</td>
<td>65.0</td>
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<td>Utility-Scale Solar Photovoltaics</td>
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<td>Improved Clean Cookstoves</td>
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<td>Distributed Solar Photovoltaics</td>
<td>27.9</td>
<td>400</td>
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Source: Drawdown 2020

*Based on the minimum impact scenario of solution implementation, Drawdown 2020*
SOLUTIONS THROUGH REPRODUCTIVE HEALTH: WHY FAMILY PLANNING MATTERS TO CLIMATE CHANGE

**HEALTH BENEFITS**
- Reduces maternal mortality & morbidity
- Reduces infant and child mortality
- Reduces rate of unintended pregnancy
- Reduces abortion rates
- Increases health overall

**INFORMED CHOICE:** enable women and couples to freely and responsibly determine the number, timing and spacing of their births.

**SOCIAL, ECONOMIC & ENVIRONMENTAL BENEFITS**
- Increases education rates for women and girls
- Improves livelihoods and wellbeing
- Reduces poverty
- Relieves population pressure on:
  - Natural resources
  - Economic growth
  - Food production
  - Infrastructure development
  - State stability
- Slower population growth reduces greenhouse gas emissions, lessens climate vulnerability

Photo by Theodore Goutas on Unsplash
FAMILY PLANNING
AND THE SUSTAINABLE DEVELOPMENT GOALS

**Peace, Justice and Strong Institutions**

**GOAL #16**

The strain of rapid population growth can threaten a fragile state's stability and security. Family planning can reduce this stress and contribute to more peaceful societies in which all people's needs are more routinely met.

**Climate Action**

**GOAL #13**

According to the Universal Access Project, meeting the current global demand for contraception and slowing population growth could get the world a third of the way to the emissions reductions we need by 2050 to avoid dangerous climate disruptions.

**Responsible Consumption and Production**

**GOAL #12**

Improving access to family planning helps slow population growth, which reduces demand for food and relieves some of the environmental pressures of overfarming, overfishing, and greenhouse gas emissions.

**Decent Work and Economic Growth**

**GOAL #8**

Family planning can create a demographic dividend: Longer lives and smaller families means more working-age people supporting fewer young people.

**No Poverty**

**GOAL #1**

Enabling women and girls to plan their pregnancies lowers health care costs, keeps more girls in school, and helps more women enter and stay in the workforce.

**Zero Hunger**

**GOAL #2**

The benefits of birth spacing can have far-reaching effects into childhood, for example, by reducing stunting—a key measure of malnutrition.

**Good Health and Well-being**

**GOAL #3**

Well-spaced births can also lead to better health for both mothers and babies, such as healthy birth weight and stronger bones.

**Gender Equality**

**GOAL #5**

Family planning and gender equality go hand-in-hand, because family planning empowers women to make decisions about when and how many children to have.

**Quality Education**

**GOAL #4**

Access to comprehensive sex education and contraceptive services help girls delay sexual debut, avoid pregnancy, and stay in school longer. On average, each year of education a girl attains increases her future earning potential by 10% and gives her children a 10% better chance of surviving infancy.

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FROM THE AMERICAN PEOPLE

**K4Health**

Knowledge for Health
SOLUTIONS THROUGH REPRODUCTIVE HEALTH: WHY FAMILY PLANNING MATTERS TO CLIMATE CHANGE

**PEOPLE**
- SDG 1. No Poverty
- SDG 2. Zero Hunger
- SDG 3. Good Health
- SDG 4. Quality Education
- SDG 5. Gender Equality

**PLANET**
- SDG 6. Clean Water and Sanitation
- SDG 7. Affordable and Clean Energy
- SDG 9. Innovation and Infrastructure
- SDG 11. Sustainable Cities and Communities
- SDG 12. Responsible Consumption
- SDG 13. Climate Action
- SDG 14. Life Below Water
- SDG 15. Life on Land

**PARTNERSHIP**
- SDG 17. Partnerships for the Goals

**PEACE**
- SDG 10. Reduced Inequalities
- SDG 16. Peace and Justice

**PROSPERITY**
- SDG 8. Decent Work and Economic Growth

SDG = UN Sustainable Development Goals, 2030 Agenda for Sustainable Development
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GUTTMACHER INSTITUTE

WHY INVEST IN FAMILY PLANNING?

885 million women of reproductive age (15–49) in developing regions want to avoid a pregnancy.

214 million of them have an unmet need for modern contraception.

This means they want to avoid a pregnancy but are not using a modern method of contraception.

● = one million

gu.ttt/AddingItUp2017
In developing regions, 214 million women want to prevent pregnancy but are not using modern contraception.

1,600 million women of reproductive age, 2017

*Modern methods include female and male sterilization, hormonal methods, IUDs, male and female condoms, modern fertility awareness-based methods, lactational amenorrhea method, emergency contraception and other supply methods.

†Includes women who are unmarried and not sexually active, are infecund, want a child in the next two years, or are pregnant/postpartum with an intended pregnancy.
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UNINTENDED PREGNANCY AND UNMET NEED

Women with unmet need for modern contraceptive methods account for 84% of unintended pregnancies.

89 million unintended pregnancies, 2017

- 74% Unmet need (no method)
- 10% Unmet need (traditional method)
- 14% Short term reversible method
- Long-acting reversible method and sterilization

www.guttmacher.org
Family Planning helps women and slows climate change

• Addressing the global unmet need for family planning will help empower more women to plan their pregnancies. Access to and use of comprehensive reproductive healthcare:
  • Increases the health of women, children, and families
  • Decreases rates of unintended pregnancies, unplanned births, and abortions
  • Increases education rates, livelihoods, and personal autonomy
  • Reduces emissions and helps slow climate change
  • Increases community resilience from climate impacts

Discussion points:
• Can you think of other ways that access to high quality healthcare benefits or otherwise influences a society?
• Outside of access, what are some challenges to increasing the use of contraceptives and other family planning services around the world?
Family Planning Innovations in Bangladesh

• Family planning is one of Bangladesh’s top stated priorities for slowing population growth and achieving sustainable development.
  
  • Bangladesh has prioritized implementing a national action plan for postpartum family planning,
  • Reduced social and geographical disparities by increasing services, and
  • Implemented a national adolescent health strategy to address the unmet need for contraception.

• The government of Bangladesh will dedicate $615 million for this family planning program from 2017-2021, which is an increase of 67% from the previous program.

• Bangladesh continues to strengthen and improve its trained service providers.
Family Planning Innovations in Bangladesh

- Contraceptive use in Bangladesh increased sevenfold in less than 40 years, from 8% in 1975 to 62% in 2014.

- The unmet need for family planning dropped from 21.6% in 1993-94 to 12% in 2014.

- The total fertility rate (TFR) was 6.8 children per woman in 1975 and decreased to 2.2 children per woman in 2014. Today, the TFR is about 2.05 births per woman.

Source: Mondal, S. 2018
Photo by Adrien Taylor on Unsplash
Family Planning Innovations in Bangladesh

- Still, almost ⅓ of pregnancies are unintended, signaling an unmet need for family planning. The TFR would be 30% lower if unplanned pregnancies were avoided.
  
- Commitment from governments and organizations is necessary to monitor strategies and improve quality and efficiency of services.

Source: Huda, F. A. et al. 2017
Photo by Charu Chaturvedi on Unsplash
What does meeting the global unmet need for Family Planning look like?

- Currently, family planning programs receive just 1% of all overseas development assistance.

- Fully meeting the current unmet need for family planning services for the 214 million women in developing regions would cost $12.1 billion annually.

- Family Planning 2020 estimates that in 2016, total spending for family planning was $3.4 billion.
  - Of this total, 48% was from donors
  - 34% was from national governments
  - 14% was out-of-pocket
  - 4% was from corporations, NGOs, and other domestic organizations

Source: Family Planning 2020
Funding Breakdown

• Following the 1994 International Conference on Population and Development (ICPD), 179 UN member states agreed on a costed implementation plan to expand access to reproductive health care.

• The ICPD Programme of Action called for 2/3 of the annual cost to be covered by low-income countries and for the remaining 1/3 to be covered by donor nations.
  
  • Donor nations are expected to contribute 1/3 of the $12.1 billion total cost – or $4.033 billion.
  
  • Final calculation produces a recommendation of $1.66 billion for FY 2020 as the appropriate U.S. share of total funding to meet unmet need.

Source: Family Planning 2020
U.S. Funding for International Family Planning/Reproductive Health (FP/RH), FY 2002-FY 2020 Request

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CONCLUSIONS

• Family planning programs receive 1% of all overseas development assistance, and yet are some of the most cost-efficient and effective investments a country can make.

• Slowing population growth through rights-based innovations like voluntary planning services and girls’ education will be necessary in achieving the UN’s medium-projection of 9.7 billion people by 2050.

• For high-fertility countries, fertility decline is driven by various factors of human development, including expanded access to reproductive healthcare services like family planning.
CONCLUSIONS

• Population growth contributes to climate vulnerability around the world.

• Slowing population growth through voluntary family planning will positively affect global efforts to mitigate the effects of climate change, and will increase resilience for populations most at-risk.

• Investments in comprehensive reproductive healthcare foster sustainable development and reduce climate impacts around the world.
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Sources


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Sources


