

Climate Change Solutions: Empowering Women and Girls through Reproductive Choice



Introduction

The realisation of the sexual and reproductive health and rights (SRHR) of women and girls and the advancement of gender equality are inherently linked to sustainable population and climate change. It is well documented that women and girls are most affected by climate vulnerability, and that their reproductive health and rights are negatively impacted by climate change. In this paper, we propose that providing reproductive choice can improve the health and resilience of women and their communities, enhancing their ability to prepare for and adapt to climate change. Providing family planning to women wishing to delay or cease child bearing can also contribute to sustainable population growth, decrease consumption and lower emissions. As a practical solution to climate challenges, sexual and reproductive health interventions should be integrated into climate change and development programs, particularly in areas vulnerable to climate change such as the Asia Pacific region.

Climate Change in the Asia Pacific region

As climate change intensifies, it is increasingly important that communities most vulnerable are better able to adapt to and mitigate its effects. This is particularly pertinent to the Asia Pacific region, where 16 countries are considered tropical and more people are affected by climate related events than any other region in the world – **83% of people in Asia and the Pacific are affected by droughts, 97% affected by flood, and 92% are affected by storms.**¹ Tropical climates and sea level rise has placed 20 countries in Asia and the Pacific at ‘extreme’ or ‘high’ risk of climate change vulnerability in 2017². While the global average of sea level rise is currently 3mm per year, the sea has risen around a 7-10mm annually around the Solomon Islands for the past 20 years. This pattern is expected to be mirrored by the rest of the Pacific in the latter part of the century as a result of human consumption.³ Due to widespread poverty and inequality, coupled with weak governance structures, individuals, communities and countries often lack access to resources and capital to recover from climate related events.

While all people living in affected areas are impacted by extreme weather events, those who are socially and economically excluded experience the effects of climate change more intensely.⁴ In particular, women are disproportionately impacted by natural disasters and experience higher fatality and morbidity rates⁵. For example, in the Asia-Pacific region, women accounted for 61% of deaths due to Cyclone Nagris in Myanmar in 2008 and 70-80% of deaths in the 2004 Indian Ocean tsunami⁶. This is linked to socially determined gender roles, inequality and discrimination. Women face additional barriers that hinder their ability to prepare for and respond to an emergency, such as lower access to education and information, less authority to act upon warnings and requiring male consent before being able to evacuate⁷.

Impact of Climate Change on Women in the Asia Pacific region and Links to Sexual and Reproductive Health and Rights

Many challenges prevent the realisation of women’s sexual and reproductive health rights in the Asia Pacific region. A lack of access to vital sexual and reproductive health (SRH) information and services contributes to significant morbidity and mortality in the region⁸. More than 60% of women have an unmet need for family planning⁹ and over half of the 25 million unsafe abortions estimated to take place each year worldwide are in Asia¹⁰. Climate related events and disasters further exacerbate these negative SRH outcomes, limiting the agency and potential of women and girls, further entrenching gender inequality and creating a cycle of poverty.

1 Asian Development Bank (ADB), 2011, Accounting for health impacts of climate change.

2 <https://reliefweb.int/sites/reliefweb.int/files/resources/verisk%20index.pdf>

3 <https://theconversation.com/sea-level-rise-has-claimed-five-whole-islands-in-the-pacific-first-scientific-evidence-58511>

4 UNDP, 2013, Gender and disaster risk reduction, UNDP.

5 Neumayer, E, & Plumper, T, 2007, The Gendered Nature of Natural Disasters: The impacts of catastrophic events on the gender gap in life expectancy 1981-2002. *Annals of the Association of American Geographers*, pp. 551-566.

6 Jain, D, & Elson, D. eds, 2011, *Harvesting feminist knowledge for public policy: rebuilding progress*. IDRC.

7 Neumayer, E, & Plumper, T, 2007, The Gendered Nature of Natural Disasters: The impacts of catastrophic events on the gender gap in life expectancy 1981-2002. *Annals of the Association of American Geographers*, pp. 551-566; UNDP, 2013, Gender and disaster risk reduction; WHO, 2002, Gender and Health in Disasters.

8 ESCAP, 2013, Facts and trends in sexual and reproductive health in Asia and the Pacific.

9 ARROW, 2014, Identifying Opportunities for Action on Climate Change and Sexual and Reproductive Health and Rights in Bangladesh, Indonesia and the Philippines.

10 WHO, 2018, Preventing Unsafe Abortion, <http://www.who.int/mediacentre/factsheets/fs388/en/>

In disaster settings, health systems often fail and sexual and reproductive health services are neglected resulting in adverse outcomes, such as:

- **Maternal and infant mortality increase** – 60% of preventable maternal deaths and 53% of preventable deaths of children under 5 take place in settings of natural disaster, conflict and displacement¹¹.
- Increase in **unsafe and unsanitary deliveries with untrained birth attendants**.¹²
- Women are **at increased risk of unplanned pregnancy**.
- Women's caring responsibilities increase, **girl's education becomes less of a priority** and their **school dropout rate increases**, limiting their ability to financially recover.¹³
- **Women's vulnerability to physical and sexual violence increases** during instability and displacement, where women may have to travel to more remote locations to collect water and food and where social controls are disrupted.¹⁴

Sustainable Population and Climate Change: Advancing the Rights of Women and Girls

The global population has reached 7.6 billion, and is expected to reach 9.7 billion by 2050. Most of this growth will occur in low and middle income countries where populations are expected to more than double, from 835 million in 2009 to 1.7 billion in 2050.¹⁵ Rapid population growth further exacerbates the negative effects of climate change, especially in areas where vulnerability to climate change is already high.

However, there are **214 million women**¹⁶ in developing regions who currently do not want to become pregnant but do not have access to family planning services. Addressing this need is vital to enhancing equity, improving health outcomes of individuals and communities and achieving sustainable population growth.

It is widely recognised that sustainable population growth is critical to addressing climate change and achieving global development priorities. To address sustainable development, the United Nations' Sustainable Development Goals (SDGs) identified sexual and reproductive health and rights as a key priority across a range of goals including health, gender equality, climate action and sustainable cities and communities. Access to reproductive health services and family planning is critical to reducing unsustainable consumption and production as well as improving food and water security. This is further emphasized by the Intergovernmental Panel on Climate Change (IPCC), who in their latest report, identified voluntary, family planning as an important climate change mitigation and adaptation strategy that can help to achieve a more sustainable population size, thus lowering emissions and reducing human vulnerability to climate change.¹⁷

Women's Empowerment and Gender Equality

Economic and Educational Outcomes

Communities with strong economic capabilities, including women's participation in the economy, are less vulnerable to climate events. They are better able to absorb the disturbances of climate change and recover while retaining the same basic structure, and way of functioning.¹⁸ Essentially, advancing women's reproductive rights and enhancing their ability to participate in the formal economy, alongside the implementation of policy advancing girls' education, plays an important role in achieving this.¹⁹

11 Zeid, S, Gilmore, K, Khosla, R, Papowitz, H, Engel, D, Dakkak, H, Rahab, N, Sharma, A, & Fair, M, 2015, Women's, children's, and adolescents' health in humanitarian and other crises. *bmj*, 351, p.h4346.

12 Lam, J.O, Amsalu, R, Kerber, K, Lawn, J.E, Tomczyk, B, Cornier, N, Adler, A, Golaz, A, & Moss, W, 2012, Neonatal survival interventions in humanitarian emergencies: a survey of current practices and programs. *Conflict and Health*, 6(1), pp.2. <https://conflictandhealth.biomedcentral.com/articles/10.1186/1752-1505-6-2>

13 ARROW, 2014, Identifying Opportunities for Action on Climate Change and Sexual and Reproductive Health and Rights in Bangladesh, Indonesia and the Philippines.

14 ARROW, 2014, Identifying Opportunities for Action on Climate Change and Sexual and Reproductive Health and Rights in Bangladesh, Indonesia and the Philippines.

15 Stephenson, J, Newman, K, & Mayhew, S, 2010, Population dynamics and climate change: what are the links?. *Journal of Public Health*, 32(2), pp.150-156.

16 <https://www.guttmacher.org/fact-sheet/adding-it-up-contraception-mnh-2017>

17 IPCC, 2015, Climate Change 2014: Impacts, Adaptation, and Vulnerability, Fifth Assessment Report.

18 Hoepf Young, M, Malone, E, Madsen, E, & Coen, A, 2009, Adapting to climate change: The role of reproductive health. *A Pivotal Moment: Population, Justice and the Environmental Challenge*

19 Hoepf Young, M, Malone, E, Madsen, E, & Coen, A, 2009, Adapting to climate change: The role of reproductive health. *A Pivotal Moment: Population, Justice and the Environmental Challenge*

Improving sexual and reproductive health outcomes is linked to poverty reduction, and resilience building at the individual, household and community level.²⁰ When women can exercise reproductive choice, they are more likely to participate in education and the workforce. In most developing countries, female participation in the formal economy has increased as fertility has fallen.²¹ The relationship between family planning and girls' education is mutually reinforcing; when girls have access to family planning, they have greater access to education and when girls are more educated they desire a smaller family size,²² further advancing their time in school and economic opportunities. A girl's education is significantly linked to her future financial stability, and for every year a girl past the age of nine spends in school, her income potential increases by 20%.²³ Women's enhanced economic capacity improves the economic status of households. Smaller families can invest more in each child, enabling more children, particularly girls, access to education, thus promoting a positive cycle of prosperity for future generations.²⁴ Essentially, educated and empowered women and girls with increased financial capacity, and smaller and more prosperous families will be better equipped to recover from environmental and economic shocks that are likely to increase with climate change. On a macro level, investment in girl's education and reproductive health can contribute to sustainable population growth and decreased emissions.

Furthermore, by investing in voluntary family planning, countries can benefit from the "demographic dividend" or the accelerated economic growth resulting from changes in the age structure of a population²⁵. In countries where this has been successful, fewer births have resulted in a smaller dependent population relative to the working age population, and with fewer people to support countries have an opportunity for rapid economic growth.

Women's Leadership in Climate Change and Climate Action

Women are vital agents of climate change mitigation and adaptation strategies.²⁶ Enabling women to control their reproductive health creates opportunities to access leadership roles historically dominated by men, and their valuable contributions can benefit climate change strategies. Women's increased leadership and participation in community decision-making, gained through improved control over their fertility and lives, can improve community resilience. The effectiveness of climate change adaptation strategies is enhanced through women's participation and leadership. As the predominant holder of household responsibilities, including caring responsibilities, growing food and collecting water and fuel wood, women are keenly aware of the impacts of environmental degradation and local needs.²⁷ Consequently communities have been shown to fare better during natural disasters when women have community leadership roles, including those in preparedness and reconstruction.²⁸

Sustainable Population and Environment

Scaling up access to voluntary, high quality family planning services in areas vulnerable to climate change can reduce the pressure that rapid population growth has on the living environment and reduce the harms associated with increasing numbers of people being exposed to climate risks.²⁹ For example, in the Asia Pacific, projected sea level rise (due to rising global temperatures) will have negative effects on increasing numbers of people, especially as coastal populations are experiencing rapid population growth.³⁰ With most of Asia's economic centres located on coastlines, coastal populations are expected to increase significantly and double in countries such as the Philippines and Vietnam by 2060.³¹ Addressing the high unmet need for family planning in these areas and promoting sexual and reproductive health can slow population growth over time, lessen the strain on resources and reduce the number of people affected by sea level rise, increased flooding, displacement and reduced availability of safe drinking water due to salt water intrusion into fresh supplies – issues that are known to adversely affect women and entrench inequality.³²

20 Hoepf Young, M, Malone, E, Madsen, E, & Coen, A, 2009, Adapting to climate change: The role of reproductive health. *A Pivotal Moment: Population, Justice and the Environmental Challenge*

21 Cleland, J, Bernstein, S, Ezeh, A, Faundes, A, Glasier, A, & Innis, J, 2006, Family planning: the unfinished agenda. *The Lancet*, 368(9549), pp.1810-1827.

22 Measure DHS, 2013, Girls' Education and Family Planning Data from the 2011 Ethiopia Demographic and Health Survey.

23 USAID, 2012, Youth in Development Policy. Realising the Demographic Opportunity.

24 Hoepf Young, M, Malone, E, Madsen, E, & Coen, A, 2009, Adapting to climate change: The role of reproductive health. *A Pivotal Moment: Population, Justice and the Environmental Challenge*; De Souza, R, 2014, Resilience, integrated development and family planning: building long-term solutions. *Reproductive health matters*, 22(43), pp.75-83

25 Bloom, D, & Williamson, J, 1998, Demographic transitions and economic miracles in emerging Asia, *The World Bank Economic Review*, 12(3), pp.419-455.

26 UNFPA & WEDO, 2009, Women at the Forefront. https://www.unfpa.org/sites/default/files/pub-pdf/climateconnections_1_overview_1.pdf

27 UNFPA & WEDO, 2009, Women at the Forefront. https://www.unfpa.org/sites/default/files/pub-pdf/climateconnections_1_overview_1.pdf

28 UNDP, 2013, Overview of the Linkages Between Gender and Climate Change.

29 Population Action International, 2011, Why population matters to climate change.

30 Asian Development Bank, 2017, The Human Dimensions of Climate Change In Asia and the Pacific.

31 Asian Development Bank, 2017, The Human Dimensions of Climate Change In Asia and the Pacific.

32 Population Action International, 2011, Why population matters to climate change.

Improving access to voluntary family planning can also contribute towards lowering carbon emissions. The IPCC suggests that if the world's population follows a slow growth path, global emissions would fall by 15% in 2050 and by 40% in 2100.³³ Slowing population growth can lower emissions due to a reduction in the number of consumers and energy required to support a larger population, as well a number of complex interrelated factors such as urbanisation, household size and ageing. Expanding family planning programs can simultaneously curb harmful greenhouse gas emissions and mitigate climate change.

Family Planning as a Cost-Effective Approach to Climate Change

Family planning is widely recognised as one of the most cost effective methods for improving health outcomes of women and children. Fully investing in contraceptive services and maternal and newborn services would dramatically reduce maternal deaths by nearly three-quarters, from 308,000 to 84,000 per year, and newborn deaths from 2.7 million to 541,000 per year³⁴. The economic impact is significant- for each additional dollar spent on contraceptive services above the current level, the cost of pregnancy-related care would be reduced by \$2.22³⁵.

From a climate perspective, the immediate and long term benefits to public health from expanding access to family planning can deliver substantial economic return. If the need for family planning is met, communities vulnerable to economic instability following disasters will be better protected with lower demand on health systems, infrastructure and water services due to improvements in maternal and child health and slower population growth³⁶.

As a climate change mitigation strategy, family planning programs are more cost-effective than other conventional, carbon energy solutions. For example, a recent estimate suggests reductions in emissions would cost \$4.50 per tonne of CO₂ if directed to family planning, compared with \$20 per tonne if directed to low carbon energy strategies³⁷. Furthermore, the study found that simultaneously investing in female education would enhance the productivity of family planning, thus resulting in higher emissions reductions and enhancing cost-effectiveness. On a larger scale, another study found reducing 34 gigatons of global carbon emissions would cost \$220 billion if spent on providing family planning to those with unmet need compared to \$1 trillion if spent on low carbon technologies³⁸.

It is critical that family planning be considered as part of a comprehensive response to climate change and that global funding mechanisms such as the Green Climate Fund³⁹ incorporate family planning programming as part of their response.

33 O'Neill, B, Liddle, B, Jiang, L, Smith, K, Pachauri, S, Dalton, M, & Fuchs, R, 2012, Demographic change and carbon dioxide emissions. *The Lancet*, 380(9837), pp.157-164.

34 <https://www.guttmacher.org/fact-sheet/adding-it-up-contraception-mnh-2017>

35 <https://www.guttmacher.org/gpr/2017/08/benefits-investing-international-family-planning-and-price-slashing-funding>

36 Hoepf Young, M., Malone, E., Madsen, E. and Coen, A., 2009. Adapting to climate change: The role of reproductive health. *A Pivotal Moment: Population, Justice and the Environmental Challenge*; De Souza, R.M., 2014. Resilience, integrated development and family planning: building long-term solutions. *Reproductive health matters*.

37 Wheeler, D, & Hammer, D, 2010, The economics of population policy for carbon emissions reduction in developing countries.

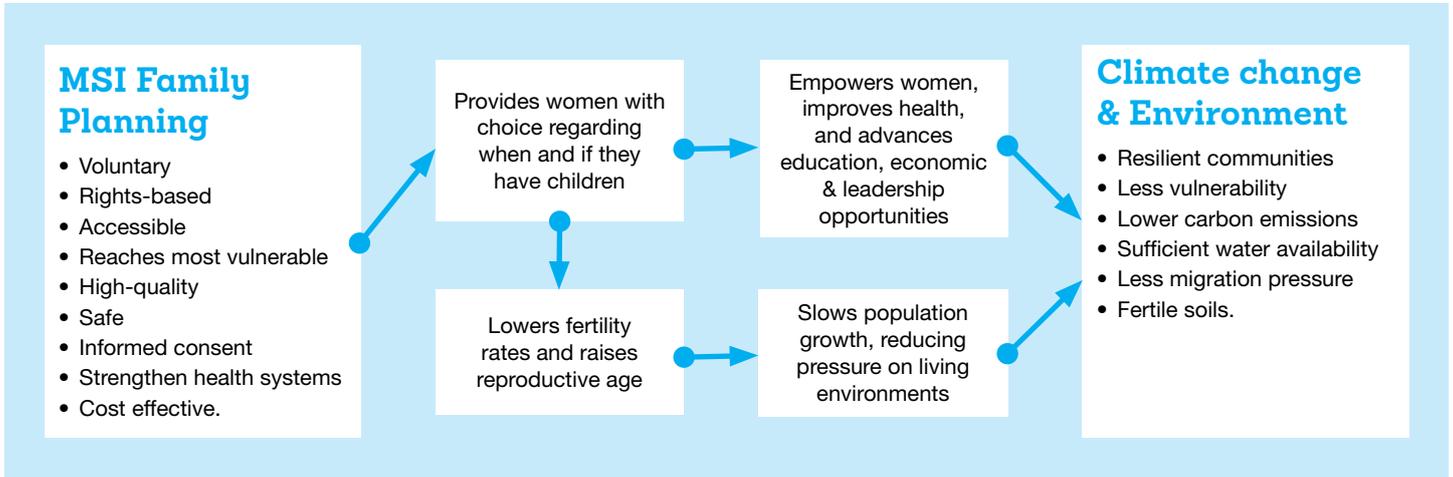
38 Wire, T, 2009, *by Investing in Family Planning*. London: London School of Economics.

39 Currently there are 175 signatories to the Paris Agreement, which sets out the terms and conditions for the Green Climate Fund. The Green Climate Fund currently valued at 12.6 billion USD, is the finance mechanism for the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC has stated that by 2020, the collective financial contributions from countries need to be scaled up to US\$100billion annually.

Marie Stopes International

Marie Stopes International (MSI) is one of the world's largest providers of sexual and reproductive health and family planning services. Marie Stopes is a non-profit social business delivering high-quality, comprehensive and voluntary information and services to underserved individuals, particularly women and girls, in 37 countries. In 2017, **26.9 million women globally** were using a form of contraception supplied by MSI, **averting an estimated 5.4 million unsafe abortions, 8.2 million unintended pregnancies and 23,900 maternal deaths.**

MSI's Approach to Climate Change



How can Sexual and Reproductive Health and Rights (SRHR) be integrated into Climate Change Adaption and Mitigation programs?

- Create partnerships that integrate SRHR into wider climate change action and development programs;
- Increase investment in voluntary rights-based family planning programs to expand and scale up access to service delivery, particularly to areas of heightened climate change vulnerability;
- Increase investment in girls reproductive health and rights education to enhance reproductive autonomy, develop workforce skills, enhance financial independence and maximise the demographic dividend;
- Expand education regarding SRHR and its linkages to climate change, particularly to women and families; and
- Integrate gender responsive SRHR services into disaster relief efforts, particularly to prevent avoidable maternal and child morbidity and mortality and enhance community resilience

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