

Removing Barriers to Family Planning, Empowering Sustainable Environmental Conservation: A Background Paper and Call for Action

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MARGARET PYKE TRUST
POPULATION & SUSTAINABILITY NETWORK

committed to advancing contraception

Removing Barriers
to Family Planning,
Empowering Sustainable
Environmental Conservation:
A Background Paper
and Call for Action

*Removing Barriers to Family Planning, Empowering Sustainable Environmental Conservation:
A Background Paper and Call for Action*

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FOREWORD BY DR JANE GOODALL

One challenge that we have to face, if we care about the future of Planet Earth, is the impact of our own species. The planet has only finite natural resources, and in some places we are plundering them faster than Mother Nature can replenish them. Both the number of people and how we live our lives are fundamental elements of sustainable development, but far more attention is given to the latter challenge than the former.

Women everywhere must be able to choose whether to have children, how many children, and the spacing between them. This is critical for their own wellbeing. But, they also need to be equipped with the knowledge as to how their choice affects the health of the planet and thus the future of their own children and all future generations. For we are part of the natural world and rely on its “services” for our very survival. It is important to remember that one child from a wealthy family is likely to use many more times the resources as a child from a poor family in the developing world.

When I first began studying chimpanzees in Gombe National Park in 1960, it was part of a forest belt that stretched from western East Africa to the West African coast - right across equatorial Africa. But in 1990 when I flew over Gombe I was shocked to see a small island of forest surrounded by completely bare hills. There were more people living there than the land could support, the soil was over farmed and infertile, and the people were poor and could not afford to buy food elsewhere. Even really steep slopes had been deforested - for growing food or making charcoal - so there was terrible soil erosion during the rains, and the streams that ran down to Lake Tanganyika were silting up. It was clear that these people were struggling to survive.

It was then that I realized that we could not even try to protect the chimpanzees and their habitat unless we could help the people find ways of making a living without destroying the environment. Already all the chimpanzees that had lived in the forests around Gombe had gone, and already some people had moved southward where the environment had not yet been exploited - and where most of Tanzania’s remaining chimpanzees live.

In 1994, in order to start addressing these problems, the Jane Goodall Institute launched TACARE, our holistic community conservation program. 7 Tanzanians were selected to go into the 12 villages around Gombe, listen to the people, and ask them what JGI could do that would help them most. And so, we began by restoring fertility to the overused farmland and improving clinics and schools. We soon realized that many families had more children than they could support so that they became increasingly impoverished and there was a good deal of malnutrition. From the outset it was clear that reproductive health was very important and so, again using local people, we provided family planning information. We also raised funds for scholarships to keep girls in school during and after puberty (which often entailed providing hygienic latrines and sanitary towels) for it has been shown all over the world that as women’s education improves family size tends to drop. This link is clear and non-controversial. When women (and men) are provided with access to family planning information they are able to take control of their own future by deciding how many children they can afford to raise and educate. And so, to further empower women we established microcredit programmes based on Muhammed Yunus’s Grameen Bank. It is mostly women who apply for these tiny loans (for environmentally sustainable projects): when the money is paid back there is a sense of empowerment, of pride in ownership.

We are expanding our work in the chimpanzee range in Tanzania, and other African counties including some of the most remote and difficult places to work in the world like North Kivu in the Democratic Republic of Congo where, in some villages, JGI is the first and sometimes only provider of family planning services.

More and more village communities are realizing the importance of protecting the forest environment, and understand that this is not only beneficial for wildlife but also for their own and their children’s future. And so, they have become our partners in conservation. The conservation and health sectors would both benefit from more of this kind of working together.

This paper explains why the removal of barriers to family planning is relevant to conservation of the environment. The related Thriving Together statement demonstrates the widespread support and attention that this issue is finally beginning to receive from both the conservation and reproductive health communities. I am delighted that we have been able to play a role in this change.

JANE GOODALL PhD DBE
FOUNDER - THE JANE GOODALL INSTITUTE & UN MESSENGER OF PEACE



PREFACE BY THE CHIEF EXECUTIVE OF THE MARGARET PYKE TRUST

In 2017, I joined a group of conservationists in South Africa's Vhembe Biosphere Reserve. As is often the case at similar gatherings, we discussed many of the most common conservation issues: climate change, the illegal wildlife trade and population growth. Around twenty conservation organisations were present that day. Unsurprisingly, the work of all twenty responded to the first two issues, but that was not the case in relation to the third.

Later that year, I joined a group of family planning advocates at the opening of the London Family Planning Summit. We discussed common family planning issues such as physical barriers to family planning services (like the absence of adequate healthcare facilities in some rural areas), educational barriers to family planning (like contraceptive myths or the lack of adequate information leading to fear of use) and the need to promote the benefits of family planning outside the health sector. Unsurprisingly the work of most of the organisations present responded to the first two issues, but that was not the case in relation to the third.

It is understandable for sectors to focus on what they know best, but it is important that this does not prevent opportunities for mutual learning and working. People and nature are interdependent and health underpins both. Communities and ecosystems can best support each other when the needs of each are met. We should not assume that population data, which are much better-known and understood in the health sector, are commonly known and understood in the conservation sector. We should not assume that community-based natural resource management programmes, which are known and understood in the conservation sector, are commonly known and understood in the health sector.

It is understandable that most conservationists do not know that relatively small improvements in family planning provision can lead to dramatic falls in fertility, which can in turn strengthen conservation outcomes, or that improved reproductive health is often the most impactful element of a conservation organisation's Gender Action Plan. It is understandable that most health practitioners do not know that integrating health actions in community-based natural resource management programmes can be a way to provide services to hard to reach populations, which can in turn strengthen family planning outcomes, or that improved environmental health, particularly in poor rural communities, is fundamental to public health. It would benefit us all and our missions to traverse sectoral boundaries, make connections across specialty boundaries and learn from each other's work.

Increasing human pressures on ecosystems are among the many challenges facing planetary health; these pressures are important because by harming ecosystems we undermine food security, human health and threaten species. If removing barriers to family planning would lessen these pressures, then removing them should form part of health, social and environmental responses. The Margaret Pyke Trust is the only member of the International Union for the Conservation of Nature with fifty years' family planning expertise, and so works at the intersection of human and ecosystem health. We have written this paper because we believe that when the conservation and health sectors work together, communities and their ecosystems can thrive together.

DAVID JOHNSON

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1. EXECUTIVE SUMMARY

1.1. THE KEY MESSAGE

If this paper were reduced to two sentences, it would say:

“Barriers to family planning are the physical, financial, educational, social, religious, personal or legal obstacles which prevent women and girls from accessing contraception. Barriers to family planning are not only relevant to those who are passionate about improving health, gender equality, empowerment and economic development, but also to those who are passionate about the conservation of biodiversity, the environment and sustainability.”

We seek to promote this message to environmental conservationists. Conservation and family planning can *thrive together*, and when they do, with barriers to family planning removed, the potential for humanity and nature to do the same increases. Conservationists understand that the growth of human populations is a major factor affecting, and often confounding, their efforts.

A sense of fatalism can accompany this awareness, leaving conservationists to wonder what legacy they realistically can leave to future generations and nature itself as human activities continue to expand and intensify. However, family planning is a powerful and positive way to respond to this demographic reality, an approach that carries with it better health for families and communities and a critical contribution to better lives and more autonomy for women.

1.2. A FEW IMPORTANT POINTS

Because most of those who work in reproductive health and demography do not actively engage with those who work in conservation, the latter group may not be aware of the following facts, or their vast implications for the environment:

- Seemingly small reductions in fertility (the average number of children born to women) over time lead to massive reductions in the pace of population growth and therefore the size of future populations.
- Current estimates of unintended pregnancy around the world suggest that hundreds of millions of women would have fewer children and/or would begin motherhood later in their lives if they faced no barriers to their right to use safe and effective modern contraceptive methods.¹ For both demographic and non-demographic reasons, removing these barriers—from lack of physical access to social disapproval—is a force for environmental conservation that too few in the conservation field currently recognise or harness.



There are many methods of contraception, and providing women with the ability to choose which method is best for them is a basic right.

- While United Nations demographers project the world will have 9.8 billion people in 2050, up from 7.7 billion today, this future scenario is neither settled nor certain. This is merely one projection, demographers’ “best guess,” known as the “medium variant” projection. Demographers’ “low variant” projection, on the other hand, is that global population

in 2050 will be 8.8 billion, and their “high variant” projection is that there will be 10.8 billion. Far from future population figures being certain, the possibilities are hugely divergent and dependent on healthcare provision provided now and whether or not we clear all obstacles from the voluntary use of contraception.

- Family planning enables the exercise of a well-recognised and uncontroversial human right: People should be able to decide for themselves, whether, when, how often and with whom to bring children into the world. No one and nothing should inhibit this right.

1.3. FAMILY PLANNING WITHIN EXISTING ENVIRONMENTAL FRAMEWORKS

The importance for the environment of removing barriers to family planning is well illustrated by the fact that conservation alliances, such as the International Union for Conservation of Nature (IUCN) and agencies such as the United Nations Environment Programme, have called attention to the risks that population growth poses to the environment. An examination by the Margaret Pyke Trust of dozens of National Biodiversity Strategies and Action Plans, submitted by parties to the Convention on Biological Diversity (CBD), reveals that all but a few nations have highlighted human population growth and density as major challenges for biodiversity at the national level. Mentions of family planning as part of the response to this challenge, unfortunately, are far less common. This suggests a lack of awareness of this critical connection and/or a reluctance to consider family planning as part of the solution.

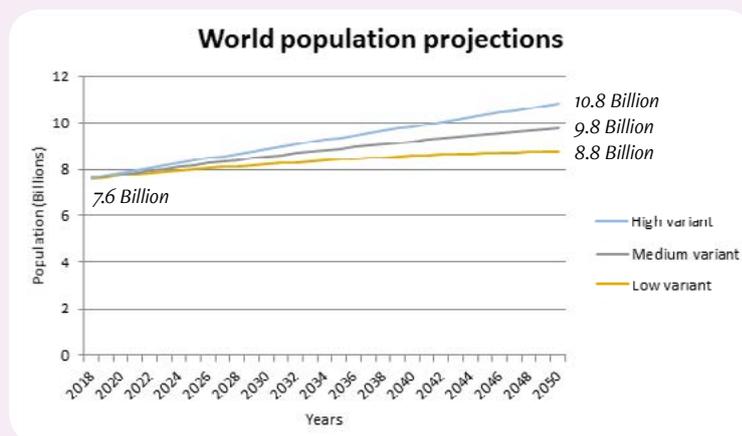
The connection is, however, becoming better-known in relation to climate change, even if not in relation to environmental conservation more broadly. Peer-reviewed scientific papers and the 2018 book *Drawdown*, for example, have concluded that widespread use of family planning, especially in combination with universal access by girls to quality secondary education or beyond, is among the most effective measures to respond to climate change over the long term. Given how high human fertility would be today had contraceptive use never achieved the widespread use it enjoys, family planning may be the least known effective action for conservation to date.

1.4. WHAT CAN CONSERVATION ORGANISATIONS DO?

Recognition of the importance of family planning to conservation does not require conservation organisations to provide family planning services—just as recognition of the importance of shifting to renewable energy does not require conservation organisations to build wind turbines. Those with reproductive health expertise and organisational specialisation are best equipped to provide family planning services based on the right of all women and girls to freely decide for themselves if and when to have children and to have the information and services to act on those decisions without discrimination. Once there is recognition, the next important step is an openness to work across sectors and consideration of programmatic and policy actions including the following:

- Conservation organisations can and should inform themselves about family planning and its importance, build the concept into their own language on what is required for long-term, integrated conservation and development, and include human population dynamics in their theories of change. Organisational Gender Action Plans in particular offer opportunities for consideration of how to include reproductive health improvements and access to modern contraception in conservation programming. This can strengthen project outcomes, community engagement, public health and equalise opportunity for girls and women.
- Conservation groups with community-based projects can forge partnerships with health groups interested in reaching these often rural communities with family planning and related health services. There is a history of such partnerships going back more than two decades and going by the name of population-health-environment, or PHE. Such projects combine efforts in primary health, particularly reproductive health, and conservation actions, often focused on alternative and sustainable livelihoods. Research indicates that PHE projects lead to greater conservation, health and gender outcomes compared to single sector conservation or single sector health projects.²
- Environmental organisations not working in communities or unwilling to initiate PHE activities can nonetheless support actions seeking to highlight the importance of improved reproductive health and rights within conservation policy.

Given how high human fertility would be today had contraceptive use never achieved the widespread use it enjoys, family planning may be the least known effective action for conservation to date.



1.5. WHY THE FOCUS IN THIS PAPER IS ON FAMILY PLANNING

Family planning is not an environmental panacea, but it is an important part of the solution—especially in the many areas where population growth co-exists with and is arguably a major factor in risk to biodiversity. Connections between human behaviour and biodiversity are complex and not perfectly understood. Clearly resource consumption—both local and remote—plays a role in threats to ecosystems and species. Technology, politics and wealth inequality are often additional factors. Yet studies have shown strong correlations and potentially causative links between population growth and threats to biodiversity in specific areas that are high conservation priorities. While the range of factors connecting human behaviour to biodiversity loss must not be ignored, the effort in this report is to demonstrate the positive contribution that family planning can make to the conservation of biodiversity, especially in some critical areas.

1.6. FAMILY PLANNING AS A HUMAN RIGHT

The year 2019 marks the 25th anniversary of the landmark 1994 International Conference on Population and Development, which positioned family planning within a broad context of reproductive health and human rights. The foundation for voluntary and human rights-based family planning can be traced back even further, to the 1968 International Conference on Human Rights, which included in its proclamation that “parents have a basic human right to decide freely and responsibly the number and spacing of their children.”²³ As such, family planning should not be considered controversial; it has been a recognised human right for more than half a century. Removing barriers to family planning is a relevant and appropriate cause for conservationists to embrace, for the sake of their missions, for the lives of women and children and for a better world.

¹Sedgh, G. et al., “Intended and Unintended Pregnancies Worldwide in 2012 and Recent Trends”, *Studies in Family Planning*, September 2014, vol. 45, no. 3, pp. 301-314 at <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1728-4465.2014.00393.x> (Accessed 15 May 2019)

²Pielemeier, J. et al., *Assessment of USAID’s Population and Environment Projects and Programming Options*, Washington, DC: Global Health Technical Assistance Project, 15 December 2007, at https://www.k4health.org/sites/default/files/crco4_PielemeierHunter_Eval%20PH%20projects_PDACL432.pdf. Hardee, K. et al., “Family Planning and Resilience: Associations Found in a Population, Health,

and Environment (PHE) Project in Western Tanzania”, *Population and Environment*, December 2018, vol. 40, pp. 204-238, at <https://link.springer.com/article/10.1007/s2F5111-018-0310-x>. Robson, L. et al., “Integrating Community-Based Family Planning Services with Local Marine Conservation Initiatives in Southwest Madagascar: Changes in Contraceptive Use and Fertility”, *Studies in Family Planning*, February 2017, vol. 48, no. 1, pp. 73-82. (Accessed 15 May 2019)

³<https://www.un.org/en/development/desa/population/theme/rights/index.asp> (Accessed 15 May 2019)

1968 International Conference on Human Rights.



2. RECOMMENDATIONS

2.1. ENVIRONMENTAL CONSERVATION PROJECT IMPLEMENTERS

- Prioritise internal organisational education about voluntary family planning and reproductive health, based in a framework of human rights, and their link to conservation outcomes. Delegate staff to this effort.
- Express support for the removal of barriers to family planning, in conservation-priority areas and elsewhere, in Gender Action Plans and through such actions as endorsing the Margaret Pyke Trust's *Thriving Together* statement (see Annex 1).
- In partnership with a reproductive health organisation, carefully consider and plan a pilot project that appropriately combines conservation activities with removing barriers to family planning in one or more communities. As confidence in this strategy grows, expand it.

2.2. POLICY MAKERS AND DONORS

- Support changes in conservation policy recognising the removal of barriers to family planning as relevant and important to the conservation of biodiversity, the environment and sustainability, as well as health, gender equality and empowerment.
- Support changes to funding streams facilitating the support of multi-sector PHE projects, rather than the continuation of siloed “health” funding and “conservation” funding, which holds back the scaling up of PHE.
- Support efforts to expand access and otherwise remove barriers to family planning, with the objective that all who seek to use safe and effective modern contraception are able to do so.

2.3. ACADEMICS

- Undertake research on the prevalence of unintended pregnancy and barriers to family planning in conservation priority areas.
- Collaborate with conservation and reproductive health organisations to document outcomes of partnership between the sectors, identifying best practices and “what works” (and what does not).
- Invest in data collection and analysis that can support and help guide all the above recommendations.

3. FAMILY PLANNING AND THE CONSERVATION OF BIODIVERSITY

SECTION 3 KEY MESSAGES

- Both the health and conservation sectors work for the long term; human and ecosystem health requires it.
- Voluntary family planning unites the interests of both sectors, improving human health and wellbeing while contributing to environmental sustainability.
- Some conservation organisations have long recognised this connection and numerous international institutions have called attention to the importance of family planning being available for all who seek it. However, the connection between family planning and conservation deserves more understanding and application. The potential for this is substantial.

3.1. THE ENVIRONMENTAL AND HEALTH LONG GAME

Efforts to conserve biodiversity, to improve public health and to encourage positive demographic change, share one key characteristic: they are long-term endeavours. The impacts of actions taken today will not be fully realised for decades to come. A giant sequoia planted today could be alive in three thousand years' time. We cannot conceive of the number of organisms that will use such a tree's resources over time. Similarly, the impacts on the women and their families of the 1960s who benefitted from the development of oral contraceptives are still being felt by families and societies today, and they will be for generations to come.

In 1980, the first international document on environmental conservation, produced with inputs from governments, non-governmental organisations (NGOs) and others, defined conservation as the “management of human use of the biosphere so that it will yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.”²⁴ Conservation of biodiversity and barrier-free access for all to contraceptive counselling and services are mutually reinforcing elements of environmental sustainability.



Admiring Giant Sequoia trees (*Sequoiadendron giganteum*), USA

3.2. THE MAIN PLAYER IN THAT LONG GAME - HOMO SAPIENS

A single species—*Homo sapiens*, us—dominates the planet. It is clear that both the number of people and the actions of those people are fundamental elements of sustainable development. While much attention is rightly afforded to people's actions, particularly the wasteful and excessive consumption so common in high-income nations and among the wealthy, the importance of our number, the critical importance of women's rights—including reproductive health and rights and barriers to family planning—has been to a large extent ignored in discussions of sustainability.

Given this human domination of nature, people's reproductive intentions and behaviour can be allies in empowering sustainable development. Women all over the world often give birth to more children — earlier, later and more frequently in their lives — than they want. Supporting women's rights to decide when, how many, how often and with whom to have children leads to smaller, healthier families. Attention to education, especially education of girls and age-appropriate comprehensive sexuality education, contributes powerfully to the desire for smaller families — and the ability to put that intention into effect. What is most powerful is to combine education with availability of family planning services, enabling realisation of the intentions of educated women and men to determine for themselves if, when and how often to have children.

Conservation of biodiversity and barrier-free access for all to contraceptive counselling and services are mutually reinforcing elements of environmental sustainability.

3.3. THE IMPORTANCE OF FAMILY PLANNING TO CONSERVATION

This connection is central to conservation and, over the years, some conservation organisations and governments have highlighted the importance of family planning in eloquently supportive language. The practical realities of how hard it will be to conserve biodiversity sustainably among consistently rising human populations, along with awareness of the importance of women in conservation work, have led major conservation alliances and organisations such as the International Union for Conservation of Nature (IUCN), the Worldwide Fund for Nature (WWF International) and the United Nations Environment Programme (UNEP) to call for better access to family planning around the world. The practice saves the lives of women and children, facilitates women's participation in economic, civic and environmental activity and is cost-effective to implement—all while slowing population growth purely through supporting the reproductive intentions of women and their partners.

IUCN, WWF International and UNEP wrote in a landmark 1991 report called [Caring for the Earth: A Strategy for Sustainable Living](#):⁵

“To stay within the Earth's carrying capacity—and well enough clear of its limits to allow real improvement in human quality of life—communities throughout the world need . . . better information, health care and family planning services.”

More recently, the secretariat of the Convention on Biological Diversity (CBD) joined with UNEP and the World Health Organization in calling attention to the impact of on-going human population growth on biodiversity and the importance of family planning in slowing that growth.

The agencies wrote in the 2015 report [Connecting Global Priorities: Biodiversity and Human Health](#):⁶

“In regions with the highest projected population growth rates, notably Sub-Saharan Africa, there remains a largely unmet need for access to contraception, a reduction of unwanted pregnancies, and the implementation of family planning policies.”

The acknowledgment in a conservation document of unmet need—a term applied to women who are sexually active and wish to avoid pregnancy yet are not using modern contraception—was notable. Awareness of the concept is often thought to be limited to the health sector. It is appropriate that conservationists are learning about it, as unmet need is highest in rural areas and among the poor, the young and the less educated. More often than not it is rural communities among and with whom conservation is pursued.⁷ Local people, after all, are those who are most reliant on healthy ecosystems and they should lead environmental conservation actions as a result.

Conservationists who recognise the importance of family planning and the barriers that stand in its way are in good company. The nations of the world have repeatedly endorsed the right to plan one's family since a 1968 UN human-rights conference in Tehran, most recently in the UN's 2015 Sustainable Development Goals (SDGs). That agreement's target 3.7—under Goal 3, “Ensure healthy lives and promote well-being for all ages”—calls for governments and peoples to:

“[b]y 2030, ensure universal access to reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.”⁸

3.4. FAMILY PLANNING – A POSITIVE APPROACH RELEVANT TO ALL THE SDGS

Family planning is an essential part of healthcare. To be free of unwanted pregnancy and the fear of having one is transformational for women, their families, their communities and their countries. The availability of a range of modern methods and voluntary use of family planning advances human rights and contributes to achievement of all the SDGs by enabling people to make their own critical life decisions by and for themselves: whether, when and how often to become a parent. Exercising this right:

- helps individuals, couples and families avoid poverty, achieve food security and ensure good health;
- supports gender equality and attainment of quality education for girls and women;

- by mitigating the impact of population growth on water supplies, contributes to improved access to clean water and sanitation;
- brings closer the goals of sustainable energy for all, action on climate change and resilience to its impacts;
- reduces land degradation and the loss of biodiversity; and
- improves prospects for safe and resilient cities and other settlements.

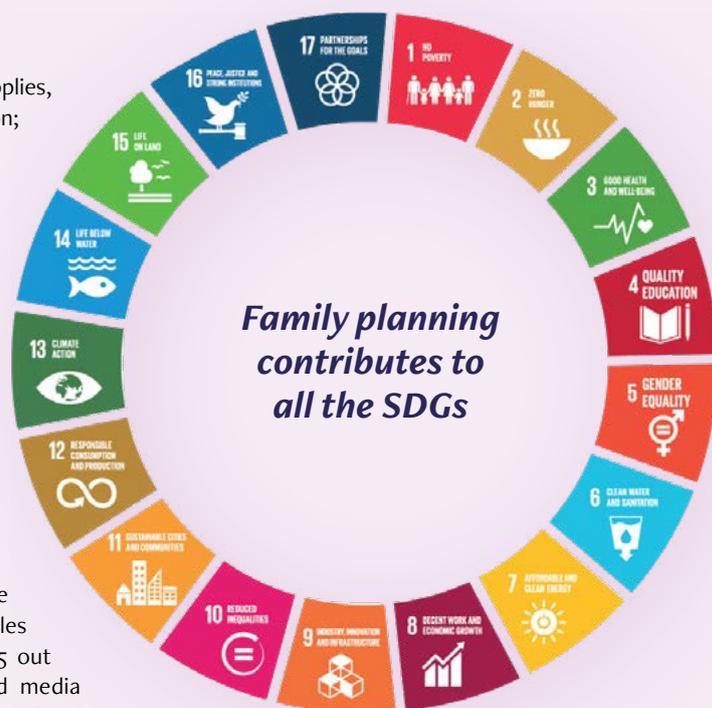
Evidence of the power of slowing population growth to lessen environmental impacts is stated in the conclusion of *Drawdown*, an ambitious attempt to rank solutions to human-caused climate change by their efficacy in slowing and eventually ending it. The authors argue that significantly increasing investments in girls' education (ranked 6 out of 100) and in family planning provision (ranked 7) would be together more effective in reducing future greenhouse-gas emissions than any single other behavioural or technological step listed. Electric vehicles (ranked 26 out of 100) and household recycling (ranked 55 out of 100) receive far greater attention from the public and media compared to family planning or increasing investment in girls' education. Yet evidence is clear as to which solutions have the greatest potential.⁹

3.5. CONSERVATION ACTIONS AT NATIONAL LEVEL

Family planning is not only relevant to climate adaptation, but at a much wider biodiversity level. Numerous [National Biodiversity Strategies and Action Plans](#) (NBSAPs), submitted to the CBD by national governments, have drawn attention to the impact of human population growth on ecosystems and species. Some of the plans call explicitly for improvements in family planning and the positive benefits these are likely to have for lower fertility and slower population growth. Indeed, among the 69 “focus countries” prioritised for action by [Family Planning 2020](#) (see box on page 8), 64 mention in their NBSAPs human population growth, density or size as a challenge for protecting biodiversity. Twelve of these countries reference human fertility and 13 specify the need for family planning services. In almost all the countries where FP2020 identified the greatest need for improvements in family planning provision, the countries' governments have themselves acknowledged the importance of human population dynamics in the loss of biodiversity.

Biodiversity Action Plan for Bhutan

His Majesty King Wangchuck of Bhutan in a Royal Message in 1995 urged the population to “adopt family planning as a means for safeguarding the very future of the nation.” The Bhutan First National Report, Biodiversity Action Plan for Bhutan states, “Population growth is the engine which drives most of the more serious threats to Bhutan’s biodiversity. Consequently, reducing that growth must be a central and underlying requirement for achieving biodiversity conservation in the Kingdom [...]”



The availability of a range of modern methods and voluntary use of family planning advances human rights and contributes to achievement of all the SDGs.

Dr Katharine Wilkinson
Vice President of Communication and Engagement, Drawdown

“Listening to women’s needs, addressing those needs, advancing equity and well-being: those must be the aims of family planning, period. Slowing the growth of our human population is a side effect, though a potent one. It could dramatically reduce demand for food, transportation, electricity, buildings, goods and all the rest, thereby reducing emissions. Close the gaps on access to education and family planning, and by mid-century, we may find one billion fewer people inhabiting earth than we would if we do nothing more. According to Project Drawdown, one billion fewer people could mean we avoid more than 100 billion tons of emissions. At that level of impact, gender equity is a top solution to restore a climate fit for life. At that level of impact, gender equity is on par with wind turbines and solar panels and forests. There is life force in learning and life force in choice.”

The logic is easy to understand, though not often enough shared with those in environmental work. Barriers to family planning lead many women and couples to have more children than they want or can support in good health. Access to a broad range of contraceptive methods tailored to individuals' desires and needs, by contrast, gives women and girls the ability to make life choices, including about their reproductive intentions. Demographers understand that even small reductions in average family size lead to major reductions in future population size over what would otherwise occur. These differences grow with time, making them especially important when we think about the long-term future of all nations' biodiversity.

This effect is among the reasons—in addition to benefiting women, their families and their communities directly—that removing barriers to family planning is a critical task that conservationists can and should support. The potential for long-term positive impacts for conservation and humanity by removing barriers to family planning is extraordinary.

3.6. WHY FAMILY PLANNING MATTERS TO ENVIRONMENTAL CONSERVATIONISTS

Conservationists are likely to consider renewable energy, public transport and lower consumption as general steps in the right direction environmentally. Those involved in conservation do not have to become expert on these

concepts to endorse them and connect them to their own mission. In the same way, conservationists can become familiar enough with family planning to embrace its importance and advocate for greater investment, access and use of contraception.

Powerful arguments make the case for conservationists to support and engage in the removal of barriers to family planning:

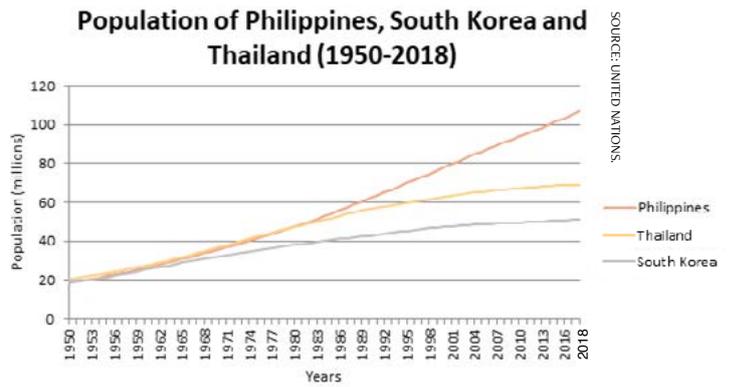
- Human population growth and its impacts on urbanisation, farmland expansion, unsustainable use of natural resources and migration due to climate change disasters present well recognised risks to the survival of ecosystems and the species that rely on them.
- Globally, some conservationists are ambitiously promoting the idea of “Half Earth”, conserving fully half the planet’s land and oceans to sustain biological diversity and ensure the wellbeing of all life. Such a vision would be easier to work toward with a smaller human population than is currently projected for the middle and end of this century.
- Population change always interacts with other factors, but in many areas of high conservation value the growth of human numbers is a particularly important — and sometimes decisive — factor.
- Authoritative international institutions promote family planning. The Intergovernmental Panel on Climate Change noted in its 2014 Fifth Assessment Report, the value of family planning for both improving health, slowing population growth and reducing greenhouse-gas emissions¹⁰ and UNEP’s fifth *Global Environment Outlook* specifically calls for greater access to family planning programmes along with women’s education.¹¹
- In the world as a whole an estimated two out of five pregnancies are unintended. By one authoritative estimate, each year sees 85 million unintended pregnancies, resulting in 32 million unplanned births, 4 million of which occur in high-income countries and the rest in middle- and low-income ones.¹² (This compares to the roughly 85 million people by which world population grows each year.)
- Sustained reductions in fertility slow population growth with increasing impact over time. Because populations tend to grow exponentially, an unintended pregnancy prevented today is likely to have far more demographic and environmental impact than one prevented several decades hence.
- Family planning is also sound practice on its non-demographic merits. Safely spaced, planned pregnancies improve the chances of survival for mothers and their children. Saving lives while also slowing population growth makes family planning a kind of preventive healthcare for families, for humanity and for Earth itself.
- Family planning enables people to put into effect personal intentions and choices in life, making sure there is opportunity and time in one’s life for pursuits beyond being a parent.
- Family planning is cost-effective, with low service-delivery expenses compared to many types of healthcare. The equivalent of a few dollars, pounds or euros can protect an individual or couple for a year from unintended pregnancy. From a conservation perspective, this amounts to an investment in resilience and prevention of likely future environmental harm—and one that pays increasing dividends over time as growth slows.

Working to reduce unmet need

“Family Planning 2020 (FP2020) is the secretariat, established after the 2012 London Summit, to effect partnerships that support the Summit goals of reinforcing the rights of women and girls to decide—freely and for themselves—whether, when and how many children they want to have. FP2020 works with governments, civil society, multilateral organisations, donors, the private sector, and the research and development community to enable 120 million more women and girls to use contraceptives by 2020. Part of that means working with other sectors, including the environmental conservation sector, because when we work together, we can do more.” – Sandra Jordan, FP2020



Country comparisons can help illuminate the impact of family planning on population, over time. In 1950 the Philippines, South Korea and Thailand, for example, had similar populations—somewhat fewer than 20 million people each. In 2018, after years of government indifference to family planning, the Philippines, a strongly Catholic country where religious belief has undermined the delivery of family planning services, had a population of 107 million, while South Korea, with strong family planning programmes, had 51 million. Thailand, similarly investing in family planning, had 69 million people.¹³



Some might argue that by contributing to smaller families, family planning can lead to greater affluence; hence more

Family planning barriers are not limited to low income nations

On average, there do not seem to be large differences between levels of unintended pregnancy in high-consuming, high-income countries and low-income countries. The United States, for example, combines high per-capita resource consumption with the world's largest economy, generating activity worth more than US\$20 trillion in 2018.¹⁴ Between 1998 and 2002, an estimated 37 per cent of births were not intended at the time of conception, a proportion that has been consistent since 1982 but now may be declining modestly. One third of these women (accounting for about 290,000 births annually) did not believe they could become pregnant at the time of conception.¹⁵



In the United States and some other high income countries, the cost of healthcare services is a barrier for many women, who might lack the money for their contraceptive method of choice.

consumption; hence greater threats to climate, nature, ecosystems and species. Some studies indeed have suggested modest effects in this direction. However, any such negative impacts of greater affluence appear to be more than offset by those of slower population growth, especially over time.¹⁶

Conservation-priority areas tend to be rural and distant from cities. People in these areas often live in what the reproductive health sector calls “last-mile” communities, meaning they are the hardest and most expensive to reach with good-quality services. The challenge of reaching these communities with reproductive health services is a further barrier to family planning. There is therefore a natural overlap in areas of interest to both the conservation and reproductive health sectors. Cooperation between the two sectors is a logical response.

3.7. THRIVING TOGETHER

As conservationists work together with human communities to conserve ecosystems and threatened species, it makes sense to forge partnerships around health and gender values that are increasingly shared worldwide. Family planning is an essential component of health and gender equality and therefore of partnerships between conservation and communities in the 21st century.

It is clear that barriers to the use of family planning are an important conservation issue and that removing them should be an objective of conservationists. The conservation and health communities have effectively the same vision of a human-inhabited world: intact nature, healthy people and ecosystems that mutually support each other and will do so for centuries to come. Both professional communities have much to learn and benefit from working together.



A group of women in a rural area of the Amhara Gonder region of Ethiopia learn about healthcare services thanks to Safe Hands' solar-power media players.

4. THE DATA AND THEIR IMPLICATIONS

SECTION 4 KEY MESSAGES

- Many people have the impression that human population is all but certain to grow from today's 7.7 billion people to 9.8 billion by mid-century, in accordance with the most recent and frequently cited demographic projections. However, this is inaccurate.
- The future of population growth is uncertain and it is highly sensitive to small changes in fertility. Furthermore, fertility is sensitive to efforts to educate and empower women and make family planning services available to all who seek them.
- The difference in just one child in average global fertility could mean a difference of billions of people in the world's population later this century, with all the implications this difference would likely have for sustaining the Earth's biodiversity.
- Many barriers—both physical and social—inhibit the voluntary use of contraception, but all can be addressed. Family planning free of barriers to its use is possible but will take sustained will and effort.

4.1. THE FUTURE IS WIDE OPEN

Fertility matters much more than many realise. In the words of United Nations demographers, “Future population growth is highly dependent on the path that future fertility will take, as relatively small changes in the frequency of childbearing, when projected over several decades, can generate large differences in total population.”¹⁷

Every two years or so, demographers in the United Nations Population Division issue fresh estimates of current population size and newly-projected population growth for the world, major geographic regions and countries. They base their projections on the latest demographic data—in combination with various assumptions about the future of birth, death and migration rates.¹⁸

When analysts in the news media and elsewhere discuss the future of population they often cite just one of these projections, the one the UN demographers call the *medium variant*. However, the demographers also acknowledge a wide range of probability for other possible outcomes, with higher and lower population numbers calculated. They publish three main projections—called the low, medium and high variants.

The low, medium and high variant projections differ only in one parameter: assumed settling points for future fertility in each country. The three variants project future populations for the world that differ by more than 9 billion people at the end of this century (7.3 billion, 11.2 billion and 16.5 billion), but the fertility difference between each variant scenario is only *half a child*.

That is, the median variant projection assumes fertility in each country will come close to 2.1 children per woman by the year 2100. This is often identified as *replacement rate* fertility, as it approximates the average number of children needed precisely to replace parents and hence eventually to lead to a stable population, net of migration. The low variant assumes average fertility will track a half child less, while the higher assumes a half child more on average. No one knows what fertility levels decades from now actually will be, of course. But looking to the past for comparison, global average fertility has plummeted by fully 2.5 children, from 5 to 2.5 per woman, since the early 1960s.

Future population growth is highly dependent on the path that future fertility will take, as relatively small changes in the frequency of childbearing, when projected over several decades, can generate large differences in total population.

4.2. THE DEMOGRAPHICS OF HEALTH AND HOPE

By early 2019, world population had reached an estimated 7.7 billion. The total grows by around 85 million people a year, or more than 1.6 million each week—more than Germany’s total population annually and more than the population of Eswatini (what was until recently known as Swaziland) weekly.¹⁹

The vast majority of this growth, though not all of it, occurs in low- and middle-income countries. Africa accounts for about two fifths, while more populous Asia accounts for half. The remainder is shared by Latin America and the Caribbean, adding 6 million people a year; North America, adding about 2.6 million; and Europe and Oceania, with comparatively small annual population additions. None of the world’s major regions, however, currently have a declining population. Some high- and middle-income countries—Japan and the Russian Federation are the only populous ones—have populations that currently are growing smaller each year.²⁰

Population change, however, is not set in stone. Certain trends have proved pretty robust—the addition of 80 million or more people per year, for example, has been constant for decades, with the growing size of population almost perfectly counterbalancing the decline in the pace of growth.

But a key hard fact about human population that too rarely is communicated effectively is that future population change is highly uncertain. No one knows how much or how fast human population will grow in coming decades, when and at what size that growth will end, or what will happen to population once it peaks. Pundits in the news media and in think tanks pay attention, as they should, to reputable demographers’ “most expected” future scenarios of population growth. However, there pundits err in treating these as inevitable outcomes, often stating that population “will be,” say, 10 billion in 2050, rather than “may be” or (most accurately) “is considered the most likely among many possible outcomes by leading demographers.” Even leading demographers cannot be confident that future conditions, circumstances and events will sustain their assumptions about rates of birth, death and migration.

The reality of population’s uncertain future offers hope to those in the health, development and conservation communities. Outcomes of much slower population growth and an earlier and lower peak of human population, with all that can imply for the interaction of people and natural systems, are eminently possible. More sustainable population outcomes will emerge from removal of barriers to family planning, along with the empowerment of women and better access to education, including comprehensive sexuality education. Such outcomes will require attention and effort by many people and communities, and conservationists are among these. The conservation of ecosystems and biological diversity will have much to gain.

A key hard fact about human population that too rarely is communicated effectively is that future population change is highly uncertain.

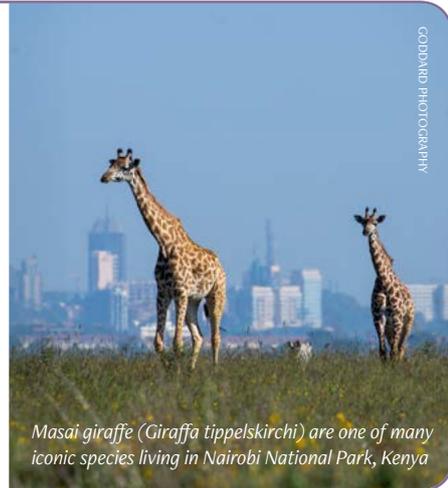
4.3. THE DIFFERENCE ONE CHILD MAKES

It’s worth considering what an additional child difference, per woman on average, would mean in population outcomes just by 2050, when many of today’s younger conservationists will still be in the field. UN demographers’ projection of a population of 9.8 billion in 2050 is based on the assumption that global fertility approaches 2.2 children per woman by that year. By contrast, if global fertility averages about 2.7 children by mid-century, world population would stand at more than 10.8 billion. Furthermore, if fertility averages slightly above 1.7 children, as assumed in the low variant projection, population would be 8.8 billion. That would be world population’s peak level before a gradual decline to 7.3 billion, less than today’s population, at century’s end. (Currently, average fertility ranges from 1.1 children in South Korea to 7.2 in Niger).²¹

The case of Kenya

Consider the population of one large country that is rich in biodiversity and conservation value: Kenya. During the 1980s, Kenya was considered a family planning success story in a region that offered few. Driven in part by concerns about rapid population growth, the country’s central government began developing a network of clinics offering contraceptive and other reproductive health services in cities and many rural areas. The government promoted family planning aggressively and the programme was voluntary and free from incentives. It appears to have tapped pent-up demand for prevention of unwanted pregnancy among Kenyan women and couples. Fertility plummeted from around 8 children per woman in the mid-1970s to just half that by 2013. This was widely seen as the fastest fall in fertility ever for a populous country in Africa. With less attention to family planning from today’s government, however, the decline of fertility rates has slowed and may even have stalled altogether.

UN demographers can't say if or when fertility in Kenya will resume its fall, so assumptions for mid-century vary from two children per woman in the low variant projection to three in the high variant. That one-child fertility difference would make a world of difference in population outcomes for Kenya even by 2050. The country's population under the low-variant fertility assumption would be 85 million, compared to 106 million under the high variant. By 2100 the gap between the two fertility scenarios is much bigger still: 95 million versus 206 million, all based on whether the average woman in Kenya during this period has two or three children in her lifetime.



Masai giraffe (Giraffa tippelskirchi) are one of many iconic species living in Nairobi National Park, Kenya

4.4. A REVOLUTION THAT MIGHT NOT HAVE BEEN

It is worth considering what a difference past declines in fertility have made to the world population of today. As noted earlier, global fertility has fallen since the early 1960s not by half a child or one child per woman, but by 2.5 children. Although the history of family planning is not without some cases of coercive policies aimed at slowing population growth, there's no doubt that the global decline in fertility over the last half century is overwhelmingly the result of more women and men wanting to have smaller families and being able to tap into locally available family planning services to satisfy their demand safely and effectively.

What would the world look like today if these services had not been available and fertility had not fallen? In 1999, sociologist Patrick Heuveline of the University of California, Los Angeles, calculated that at steady 1960s fertility rates, human population would have reached around 8 billion by the turn of the century, a one third increase over the 6 billion alive at that time.²² Extrapolating from Heuveline's calculations, we might estimate that a hypothetical high-fertility world population today would be surpassing 10 billion or perhaps even 11 billion, numbers now not projected for decades. This is the difference that fertility makes—and can continue to make for the future of humanity and biodiversity. The enormous contribution that the development of modern methods of contraception (starting in the 1960s) has made to conservation is in fact one of the least often recognised or expressed of its many contributions to a better world.

Already, nearly half of the world's population lives in countries where average fertility has fallen below 2.1 children per woman. Based on slightly varying estimates, from 91 to 95 countries are in this category out of about 200 for which demographers track fertility rates, with a combined population of about 3.7 billion people, a shade under half of the world's total people.²³ Even in these countries—most of them industrialised and characterised by per capita GDPs above the global average—fertility would be lower if there were fewer barriers to family planning and hence fewer unintended pregnancies.

It is not quite accurate to state, as many do, that when populations have fertility levels of two children per woman or less, they are not producing enough children to maintain their population size. When more recent generations have smaller families than previous generations, and when there is no net immigration, most populations continue growing for several decades. This phenomenon, *population momentum*, results from more babies being born overall of many mothers (albeit mothers having fewer children per mother), than in previous generations when there were fewer mothers. Population momentum is one reason populations continue to grow in the vast majority of the countries with fertility levels at or below 2.1 and why removing barriers to family planning has far-reaching impacts for decades to come.

The enormous contribution that the development of modern methods of contraception (starting in the 1960s) has made to conservation is in fact one of the least often recognised or expressed of its many contributions to a better world.

Then, however, there are the 104 to 107 countries with fertility levels above 2.1 children per women. In 38 of these countries, fertility exceeds four children per woman, with Somalia above six and Niger above seven. The combined population of these 38 countries is approaching 1 billion, and this population—much of it in Africa and in countries with high biodiversity—is growing rapidly and is projected to do so far into the future. These are populations in which the barriers to the use of contraception are especially high. And they are areas where efforts to support the use of family planning are particularly likely to contribute to conservation and to environmental sustainability.

4.5. THE IMPORTANCE OF THE CONCEPT OF BARRIERS TO FAMILY PLANNING

As conservationists will understand, contraception is hardly the natural or default state of affairs in animal reproduction (including human). While some decisions to have sex arise out of a desire to conceive, most do not. Some people are of course willing to accept the possibility that any sex act will lead to pregnancy. But for the rest, contraception is a near-constant need for most of the several decades the average person is *fecund*, i.e., physically capable of conception resulting in pregnancy and birth. Yet for hundreds of millions of women and couples this need is not being met.

Some economists treat parental childbearing decisions as a rational economic one, based on weighing costs and benefits, just like, say, buying a refrigerator. But the relationship between sex and reproduction is clearly altogether different. Among most couples it resembles more closely a refrigerator arriving at one's door every year or two without being ordered. This is where family planning becomes especially important. In today's world, where babies can be anticipated to survive to adulthood and are costly to raise to that age, the need for most people is to assure that the vast majority of sex acts throughout their lives are not followed by pregnancy. That takes intention, planning, education and the support of society to provide the means to put intention into effect.

Today, multiple safe and affordable contraceptive options are available to enable enjoyment of sex without fear of pregnancy and, in the case of barrier contraceptives, sexually transmitted infection. Yet surveys suggest that an estimated 214 million women in “developing countries” do not use modern contraception despite having no wish to become pregnant.²⁴ There are no doubt also many women in high-income countries in this situation, but there are no reliable data on this total.

Since every method of contraception has a failure rate (which is very low for some modern methods), many women worldwide become pregnant even when using modern contraception. Moreover, discontinuation of a family planning method can occur, due to side effects, or the fear of side effects, resulting in an unintended pregnancy. Discontinuation and/or method failure might also be called unmet need for *effective* contraception. After all, the point of contraception is actual avoidance of unintended pregnancy.

	Best at preventing pregnancy	Less need to remember	STI protection	For regular periods	For no periods	For less painful periods	Less acne	Less PMS ⓘ	Hormones
Implant	👍👍👍	👍👍👍	👎👎👎	👎👎👎	👍👍👍	👍👍👍	👎👎👎	👍👍👍	Yes
IUS	👍👍👍	👍👍👍	👎👎👎	👎👎👎	👍👍👍	👍👍👍	👎👎👎	👍👍👍	Low levels
Copper Coil	👍👍👍	👍👍👍	👎👎👎	👍👍👍	👎👎👎	👎👎👎	👎👎👎	👎👎👎	No
Injection	👍👍👍	👍👍👍	👎👎👎	👍👍👍	👍👍👍	👍👍👍	👎👎👎	👍👍👍	Yes
Combined Pill	👍👍👍	👎👎👎	👎👎👎	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	Yes
Mini Pill	👍👍👍	👎👎👎	👎👎👎	👍👍👍	👍👍👍	👍👍👍	👎👎👎	👍👍👍	Yes
Patch	👍👍👍	👍👍👍	👎👎👎	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	Yes
The Ring	👍👍👍	👍👍👍	👎👎👎	👍👍👍	👍👍👍	👍👍👍	👍👍👍	👍👍👍	Yes
Diaphragm	👍👍👍	👎👎👎	👍👍👍	👍👍👍	👎👎👎	👎👎👎	👎👎👎	👎👎👎	No
Condoms	👍👍👍	👎👎👎	👍👍👍	👍👍👍	👎👎👎	👎👎👎	👎👎👎	👎👎👎	No
Fertility Awareness	👎👎👎	👎👎👎	👎👎👎	👍👍👍	👎👎👎	👎👎👎	👎👎👎	👎👎👎	No
Withdrawal	👎👎👎	👎👎👎	👎👎👎	👍👍👍	👎👎👎	👎👎👎	👎👎👎	👎👎👎	No

Methods of contraception have different pros and cons. This table can assist individuals to choose which is right for them.

4.6. DIFFERENT FORMS OF BARRIERS TO FAMILY PLANNING

Barriers to family planning are obstacles that are:

- physical (no services within feasible reach or debilitating side effects);
- financial (services are too expensive);
- educational (misinformation or inadequate information leading to fear of use);
- social (stigma, religious and cultural issues, and opposition of male partners, or from parents or in-laws);
- personal (one's own convictions); or
- legal (such as parental consent restrictions preventing adolescents from initiating their own healthcare).

Any or all of these barriers can discourage or prevent a woman or her partner from taking or supporting steps to avoid an unintended or unwanted pregnancy while sexually active. (By common definition an unintended pregnancy is one that is either *never desired* by a woman or is *mistimed*, occurring at least two years before she wants to become pregnant. The term “unwanted birth” is occasionally used but is less useful in surveys, as few women are likely to state that they regret a birth after a child is born.) When opposition to contraception by others proves a barrier, it is often an indication of low status and minimal autonomy for women.

Barriers can be addressed, ameliorated and eventually erased. Those that persist do so chiefly because of lack of funding, lack of political will and in some cases, powerful religious views or other social and cultural forces that stand in the way of positive change.

In areas where conservation work is moving forward, a primary obstacle is often the complete or near absence of family planning and related reproductive health services. This is most common in remote rural areas, such as those in and around protected areas.²⁵

For many reasons, including cultural or political ones, family planning and reproductive health services may be even less accessible than other types of healthcare. Recruiting well-trained or qualified service providers may be difficult, language barriers, discriminatory social attitudes or unfriendly clinic staff may hamper service, inadequate prioritisation by governments, poor transport and infrastructure, and dispersed populations may restrict needed assistance for full-service delivery.

The mere presence of family planning services in an area has been demonstrated to increase interest in and demand for contraception. These services have even encouraged girls to stay in school longer and participate in the formal labour force.²⁶ Even where surveys suggest that large families are desired by many women and men, family planning can significantly reduce fertility. Individuals and couples may feel that a large family would be nice to have—a view often influenced by peer pressure among survey respondents. Yet when faced with the challenges of life (economic or health problems, for example, or problematic spousal or other partner relations), one or both individuals may not want another pregnancy.

Regardless of reported “ideal family size,” over decades of sexual activity the capacity to use contraception generally results in fewer children, born later in their parents’ lives. This is well illustrated in some low-fertility, high-income countries, where surveys reveal women are having fewer children than they would like, by postponing childbearing or having fewer children due to stressful jobs, economic constraints, poor housing options or unpromising sexual relationships.

4.7. ACCESS AND INFORMATION

Clearly, the physical presence of accessible clinics and/or home visits offering a consistent range of contraceptive options and staffed by competent, well-trained personnel responsive to clients’ needs is essential. Put another way, without physical access to contraceptives and the information needed to use them, women and their partners cannot practice family planning safely and effectively.

Among the most powerful and persistent barriers to the use of contraception is inadequate or absent education. In addition to general schooling and sexuality education, clinical information provision and comprehensive counselling on contraceptive methods and how to use them, based on what users want, are essential. Adequate reproductive health services should always accompany sexuality education; it would hardly be ethical to educate young people about reproductive health and then deny them access to the services that can secure it. Allying with the health and education sectors to improve access to all three categories of education would serve conservation as well as health. So would incorporating appropriate health education in conservation programmes.

“Family planning has played such an important role in conservation. I wish that all people working on conservation would understand the importance of working with local communities.”

Dr Jane Goodall

Video Message at opening ceremony of the International Conference on Family Planning 2018

“Conservationists might be surprised that religion isn’t as big a barrier to the use of family planning as they might think. I’ve often been told by women that whatever their religious leaders tell them, they know that God would not want them to die in pregnancy, or for their baby to die, or for their children to go hungry or become ill because there are so many children to feed and care for. Women understand, regardless of religious strictures, they do what they need to do for their families.”

Sophia Ladha

Country Director South Africa, Pathfinder International

More challenging, but still approachable, are cultural barriers related to women's status, religious doctrines, perceived need for help from family labour and fear of child loss. Family, peers and male partners may oppose women's efforts to plan pregnancy. Misinformation may deter the use of contraception, even for those who would like to avoid pregnancy.

Not that it's up to conservationists to erase these barriers; that is fundamentally the work of governments, supported by the health and development sectors. The problem resists simple analysis and even simpler "solutions". But in alliance with these sectors, conservationists can support strategies that can increase the use of family planning, reduce unintended pregnancy and support a reduction in preferences for early childbearing and large families. Facilitating and encouraging such trends not only improves the wellbeing of women and their children directly but also slows population growth, with all the benefits of those impacts to conservation and environmental change.

"Decision makers and service providers know that family planning is culturally sensitive, with the duty to protect the users at all times in accordance with global and in country policies especially at the point of service. Contraception is especially sensitive and cannot be forced on anyone, yet we must ensure that no one is left behind, not even the boys or persons living with disability. But at the same time, the aspiration to avoid too many pregnancies, or pregnancies that come too soon or too late, is widespread in almost every culture. The health system must therefore meet the needs of individuals for sexual and reproductive health, and the timing of pregnancy, including their social and cultural needs without any form of financial burden."

Aanu Rotimi
Health Reform Foundation of Nigeria

- ⁴ International Union for Conservation of Nature and Natural Resources, ed., *World Conservation Strategy: Living Resource Conservation for Sustainable Development*, IUCN–UNEP–WWF, 1980 <https://portals.iucn.org/library/sites/library/files/documents/WCS-004.pdf> (Accessed 15 May 2019)
- ⁵ *Caring for the Earth: A Strategy for Sustainable Living*, published by IUCN in partnership with WWF and UNEP, Gland, Switzerland, 1991, at <https://portals.iucn.org/library/efiles/documents/CFE-003.pdf>. (Accessed 15 May 2019)
- ⁶ *Connecting Global Priorities: Biodiversity and Human Health: A State of Knowledge Review*, World Health Organization and Secretariat of the Convention on Biological Diversity, 2015, at <https://www.cbd.int/health/SOK-biodiversity-en.pdf>. (Accessed 15 May 2019)
- ⁷ Sedgh, G. et al., June 2016, "Unmet Need for Contraception in Developing Countries: Examining Women's Reasons for Not Using a Method", Guttmacher Institute, p. 64, at <https://www.guttmacher.org/report/unmet-need-for-contraception-in-developing-countries> (Accessed 15 May 2019)
- ⁸ <https://sustainabledevelopment.un.org/sdg3> (Accessed 15 May 2019)
- ⁹ Hawken, P. and Steyer, T., *Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming*, 2017, New York: Penguin <https://www.drawdown.org/> (Accessed 15 May 2019)
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5. REASONS TO ACT ON FAMILY PLANNING

SECTION 5 KEY MESSAGES

- Whether pregnancy is planned or unintended has implications, not just for women, children and their health, but also for conservation.
- Substantial research implicates population growth directly or indirectly in threats to ecosystems and species.
- Protected areas alone may be ineffective in saving ecosystems and species in the absence of more sustainable population trends.
- Non-demographic benefits—especially those that empower women as decision-makers and agents of conservation—are also powerful reasons to remove barriers to family planning.

5.1. REPRODUCTIVE DECISIONS MATTER

Unintended pregnancy undermines the contributions women can make to the work of conservation. Many conservationists have seen first-hand what happens when women, enthusiastic about and trained to take on conservation-related responsibilities in communities or to learn functional literacy or other skills, suddenly drop out of sight and activity because of a childbirth, perhaps one they did not plan on or intend having.

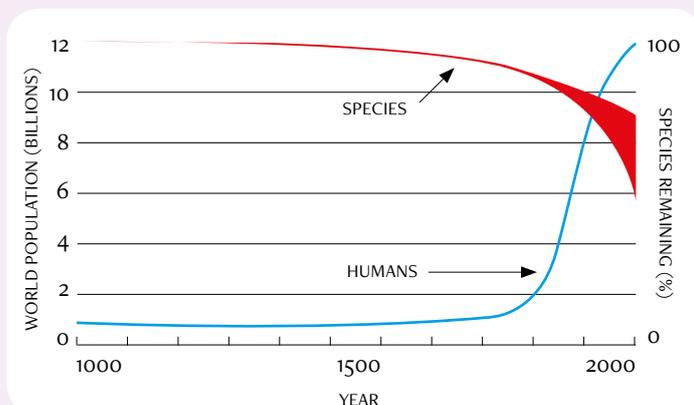
These are direct impacts that can be largely averted when women are able to plan if and when to have children and are able to put *their* plans into effect. The successful decisions women and their partners make about reproductive timing and frequency then ripple out to influence the challenge of conserving ecosystems and species.

5.2. A CAUSAL CONNECTION

As humanity advances demographically and economically, biodiversity retreats. Almost as obviously, this relationship is not coincidental but causal. In August 1991, the publication *Science* published a graphic created by renowned conservation biologist Michael E. Soulé that purported to show the relationship between human population and biological diversity from A.D. 1000 to 2050.

“The more fundamental causes [of biodiversity loss] are rooted in the contemporary human condition,” Soulé wrote in the accompanying article, “especially as they are amplified by the explosive growth in human numbers in the last three centuries.”²⁷

The figure was little more than a back-of-the-envelope characterisation of a correlation—which is not the same thing as causation. The point was at best only generally supported by demographic and extinction data up to 1991. Yet Soulé was observant: population growth and species decline were indeed accelerating in the



Based on the image showing the relationship between human population and biological diversity first published in *Science*.

20th century. Moreover, he was prescient: His figure indicated there would be somewhat more than 10 billion human beings alive in 2050, just 200 million more than the current median projection. Biodiversity loss remains a global crisis and biologists expect it to accelerate further.²⁸

In the years since the article's publication, scientists have compiled abundant research and data that more compellingly details the causal connection Soulé assumed to exist from human population growth to biodiversity loss. While climate change often gets the blame today for biodiversity loss, a 2016 analysis of threats to more than 8,000 species identified overexploitation (harvesting of wild species beyond their ability to reproduce), agriculture and urbanisation as the largest drivers. All of these activities are intimately related to human numbers.²⁹

5.3. LAND USE: AGRICULTURE

As world population continues rising toward 9 billion and beyond, the needed expansion of agriculture to feed more people looms as a particular threat to conservation, especially if those diets are more meat-filled. In 2018, group of researchers calculated that if the world follows US Department of Agriculture dietary guidelines as its population grows, an area of land the size of Canada would need to be converted to agricultural land by 2050 under current farming practices.³⁰ It is highly unlikely that so much potentially arable land could be converted without major cost to natural ecosystems and biodiversity.

This point is made in a large number of NBSAPs and their associated reports. For instance:

- Kenya's most recent report on its NBSAP concludes that the most important threats to its amphibians and reptiles include habitat encroachment, "mainly driven by human population pressure, agricultural activities, mining" and other anthropogenic issues.³¹
- Cambodia's NBSAP states that "high population growth and the increasing economic demands of this growing population have often led to the conversion of natural forests to agriculture, to land degradation and pollution caused by unsustainable agriculture and industries."³²
- Cameroon's fourth national report to the CBD Secretariat states that "more than 80% of the Cameroonian population depends on biodiversity related activities such as agriculture, fishery, livestock, forestry, shelter, medicine and energy, [and] the ever increasing population rate is impacting negatively on the status of biodiversity."³³

These rice fields in Indonesia highlight how agriculture can transform landscapes.



The impact of agricultural expansion is a common theme in the NBSAPs and their associated reports in countries, which have significant barriers to family planning. Kenya, Cambodia and Cameroon are all among the countries considered by FP2020 to be nations in which particular focus should be paid to removing barriers to family planning.

5.4. LAND USE: BIODIVERSITY

It makes sense that population growth and related dynamics—urbanisation, migration, road construction and fragmentation of habitats, for example—threaten biodiversity. Indeed, recently-reported declines in species and in wild-animal mass are occurring in close timing with increases not only in human population but also in the population of livestock and companion animals.

“Biodiversity is essential for food security and nutrition, and offers key options for sustainable livelihoods. Environmental integrity is critical for maintaining and building positive options for human well-being.”

*Convention on Biological Diversity
Decision VIII/23: Agricultural Biodiversity*

The impact of human settlement and activity on species is momentous and increasingly well documented. In 2014, researchers estimated that 322 terrestrial vertebrate species have gone extinct since the year 1500, while the abundance of the surviving species in this category shrunk by a quarter. Population declines among invertebrate species were found to be similarly dire.³⁴ In 2018, WWF estimated that populations of vertebrate species have declined overall by a staggering 60 per cent since 1970.³⁵

The situation is especially worrying for the large herbivores that dominate the plains of the Serengeti and other places in Africa.

- The Great Elephant Census reported a 30 per cent decline in just the last seven years, to just 352,000 today.³⁶
- By some estimates there were 200,000 lions in Africa a century ago, but just 23,000 to 39,000 today.³⁷
- Populations of lowland gorillas and giraffes appear to be in similar near-catastrophic decline.

In 2015, a study concluded that the world’s 74 largest terrestrial herbivore species “are generally facing dramatic population declines and range contractions, such that ~60% are threatened with extinction.”³⁸ Although the authors did not specify human population as a direct threat, they characterised the increasing scale of those they mentioned—“hunting, land-use change, and resource depression by livestock”—as causally related to human population growth.

Several factors associated with human activity lie behind these worrisome trends. Certainly poaching and both illegal and legal trade in wildlife are major contributors. However, the loss of biodiversity through expansion of human activity and settlement gets far less media and public attention or conservation programming, while contributing as much or more to the loss of biodiversity.

5.5. HABITAT LOSS AND FRAGMENTATION

Land-use change can be devastating to wildlife, as can subdividing and compartmentalising what habitat remains. This reality is acknowledged in several conservation plans. The IUCN’s Conservation Action Plan for the endangered Grauer’s

Research highlights the veterinary fences of Botswana’s Okavango Delta contribute to the decline of wildlife species.



Gorilla, for instance, states, “Human population growth and the demand for land to cultivate are the main causes of habitat loss in eastern [Democratic Republic of Congo] and habitat loss is one of the major threats to great apes.”

The IUCN goes on to report about the rate of forest conversion to arable land, how poor farming practices require people to encroach on the forest, including by way of slash-and-burn agriculture.³⁹ People in the Democratic Republic of Congo face an array of barriers to family planning, such as fear of side effects, limited knowledge of contraceptive options and, importantly, male partners’ role as the primary decision-maker.⁴⁰ Those with large families have little choice but to convert natural habitat to support their families.

5.6. THE EXTENT OF CHANGE TO DATE

In 2018, researchers reported that the biomass of all the world’s wild mammals, equivalent to 7 million tonnes of carbon, now totals less than 12 per cent of the biomass of humanity, at 60 million tonnes. Including livestock in the mix (mostly cattle and pigs) at 100 million tonnes, tips the scales even more forcefully, while the biomass of domestic poultry, at 5 million tonnes, exceeds that of wild birds by almost a factor of three. The authors concede that estimates of pre-human biomass for wild creatures are highly uncertain. To the extent others have tried to quantify such numbers, it nonetheless seems likely that the biomass of land mammals has plummeted to about a seventh of its pre-human extent, while aquatic mammalian biomass is about a fifth of its former size.⁴¹

In the world’s oceans, the proportion of fish stocks that are at biologically sustainable levels has fallen from 90 per cent in 1974 to less than 67 per cent in 2015, according to the UN Food and Agriculture Organization.⁴² The on-going growth of human population from the species’ origins to today’s billions has clearly been devastating not only to ecosystems and species but to the actual mass of wild creatures with which we share this living planet.

“According to FAO estimates Pakistan has already lost 50% of its forests and in the current scenario, Pakistan will not be left with any intact natural ecosystems. Pakistan is home to a large number of wild relatives of crops and if these species are lost there will be serious negative consequences for maintaining the robustness of the crops. Pakistan is also home to a large number of endemic species that are likely to be lost. The loss and degradation of natural resources needs to be halted -- not only for the economic well-being of the local people but also for the huge global benefits.”

**Pakistan Fifth National Report
Biodiversity Action Plan**

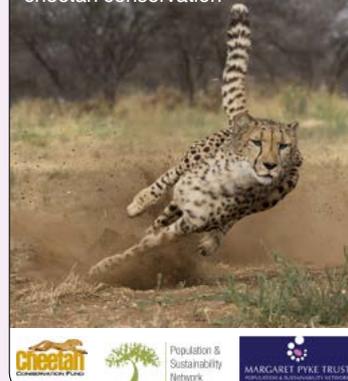
5.7. PROTECTED AREAS ALONE ARE NOT ENOUGH

Even in protected areas, biodiversity and species population abundance (measured as biomass, or weight in carbon) are generally declining. In some cases these losses border on the catastrophic. A 2017 study of 63 protected-nature areas in Germany found that the biomass of flying insects plummeted 75 per cent over 27 years of study.⁴³ The following year, a study identified comparably precipitous declines of insect biomass in tropical forests in Puerto Rico from the late 1970s to the present.⁴⁴

Researchers have found that increasing the number and expanse of protected areas was an inadequate strategy for protecting biodiversity, given the continued expansion of human population and activities worldwide.⁴⁵ Similarly, a 2018 study of the Western Ghats Biodiversity Hotspot in western and southern India found that, while protected area status tended to lead to greater likelihood of tropical forests remaining extant, this protective value declined as population in and around the areas increased. At particularly high population densities, there appeared to be no difference between protected and unprotected land in preventing loss of forest cover.⁴⁶

Most interactions between humans and many critically endangered species occur well outside protected areas. More than 90 per cent of cheetahs in Namibia and a similar proportion in Botswana, for example, live outside of protected areas. In Namibia they mostly inhabit communal and commercial agricultural land. That amplifies the risk of human-animal conflict, in which the animals almost invariably lose.⁴⁷ Some marine protected areas include what are often called “no-take zones”. But most of the planet can be characterised as a “take zone”, especially where wild animals threaten domestic ones, crops and orchards or human safety.

The importance of human reproductive health and rights for cheetah conservation



In 2018 the Cheetah Conservation Fund and Margaret Pyke Trust published a paper looking at the overlap of cheetah range states and nations with particular barriers to family planning. [Download the paper here.](#)

5.8. PROTECTED AREA STATUS IS NOT NECESSARILY PERMANENT OR EFFECTIVE

Many protected areas are little more than “paper parks”, that is, areas which might be coloured green on maps and described as protected, but which benefit from little or no formal management or protection in reality. Often, too, the boundaries of protected areas, or restrictions on human use within them, turn out to be disturbingly pliable, as populations along with economic and political pressures increase outside them. In recent years, an area of protected land the size of Peru or South Africa has been undermined by protected area downgrading, downsizing or degazettement (PADDD), according to World Wildlife Fund, Conservation International and partners that have documented the process.

These groups have identified 3,000 cases in 70 countries in which national parks and other protected areas have suffered either easing of restrictions on human activities (“downgrading”), a reduction in the area protected (“downsizing”), or outright reclassification as, effectively, open for business (“degazettement”).⁴⁸ This is a particularly important phenomenon, yet little understood. The misconception is pervasive that once land obtains protected area status that such protection is permanent. That is hardly the case. Degazettement typically follows population growth, economic development or both in areas surrounding protected areas. These pressures then spur reassessments of the economic or settlement potential of areas previously deemed more valuable as protected. This process occurs in high- middle- and low-income countries, notably and recently in the US on presidential executive order.

“Wildlife ACT has a particular focus working in and around Protected Areas, and we work with many communities bordering such areas. Empowering individuals in these communities is critical, as these communities generally face many health, livelihood and other challenges. We see significant value in improving family planning provision as a comprehensive part of conservation efforts.”

Mark Gerrard
Director Community Conservation, Wildlife Act

5.9. POPULATION DENSITY

In 2013, researchers compiled data from national censuses and from IUCN’s Red List of threatened species worldwide. They documented that both human population density and human population growth contributed directly to increases in numbers of threatened birds and mammals, with particular impact on endemic species and those with small ranges.⁴⁹ A 2015 study of the causes of deforestation in sub-Saharan Africa found that “rural population was the strongest and most robust predictor; it was associated with increased forest loss across time periods and forest cover and country groups.”⁵⁰

Camilo Mora and 55 co-authors found that dense coastal populations pose particular threats to nearby biodiverse fish communities. This large and diverse group of conservation scientists called specifically for slowing population growth through improvements in family planning availability along with poverty alleviation, education and empowerment of women.⁵¹

It is a problem that population growth rates tend to be highest around the world where biodiversity is richest. Researchers used geographic information systems software in 2000 to examine population density and growth rates in biologically diverse areas. They found that 20 per cent of the human population occupied the 12 per cent of the Earth’s land surface containing the 25 areas that scientists associated with Conservation International had identified as “biodiversity hotspots”.⁵² The average population growth rates in these areas was 1.8 per cent annually, above the 1.6 per cent average population growth rate in low and middle-income countries and the 1.3 per cent rate for the world as a whole at that time.

“These results suggest that substantial human-induced environmental changes are likely to continue in the hotspots and that demographic change remains an important factor in global biodiversity conservation,” the authors wrote. “The results also underline the potential conservation significance of the continuing worldwide declines in human fertility . . .”⁵³

5.10. A SITE SPECIFIC ISSUE

Human population expansion threatens species survival and undermines functioning ecosystems in some regions and areas more directly than in others. Multiple factors of demography, economics and other aspects of human behaviour influence biological change. Where human population growth is especially influential—outside many protected areas in regions where fertility levels are high, for example—the importance of removing barriers to family planning is local and can be catalytic.

Notwithstanding this local significance, providing contraceptive choice and rights is of global importance. Even where factors other than fertility may be more influential in the challenges that conservation faces, the future of biodiversity benefits when those who care about it affirm the importance of and help normalise contraception, smaller families, slowed population growth and an eventual end to that growth worldwide.

One example of the influence of population growth on a protected area is the Lorentz World Heritage Site in Indonesian Papua. Researchers associated with IUCN and UNEP ranked the site 13th among more than 173,461 protected areas in the world for the irreplaceability of its mammals, amphibians and birds. (“Irreplaceability” is a measure of species richness combined with the aggregate dependence of these species on the area to avoid extinction.)⁵⁴ Among the major threats to the area is a plan by the government of Indonesia for a 4,000-kilometer development corridor that will facilitate mining in the area.

While that political decision may be the most direct threat to the area’s wealth of diverse animal species, an analysis of the development corridor found that a large swath of it “is fringed by smallholder agricultural conversion that has expanded significantly due to population growth and the release of forest for conversion.” Demographic change therefore links with politics to threaten not only a top-ranked protected area, but one of the largest tracts of intact tropical forest in the world, covering much of the island of Papua New Guinea and 41 per cent of the island’s Indonesian western half.⁵⁵

Indonesia is one of the countries the Family Planning 2020 initiative has highlighted as facing particular barriers to family planning, especially in its rural areas. The barriers include the absence of adequately trained, maintained and supervised clinical staff and socio-cultural barriers that prevent adolescents, single and unmarried women and others from using services.⁵⁶

The relative weight of population growth in putting ecosystems and species at risk varies considerably, of course. There are ecosystems where threatened species are amidst human populations that are growing only modestly (though often this is occurring where population density is high). Then there are places, like Indonesian Papua, where rich biodiversity is in danger of being lost in large part because of rapid demographic growth.

Conservation members of the [Alliance for Zero Extinction](#), launched in 2005, have identified [853 sites](#) around the world that are home to the last-remaining populations of one or more species categorised as endangered or critically endangered by IUCN. More than two-fifths of these areas have no specific legal protection for the ecosystems and species within them. Although many are in high-income and middle-income countries and areas of relatively modest human population growth, most are in parts of Africa, Asia and Latin America, in regions where population growth is clearly among the factors threatening the endangered species.

5.11. FAMILY PLANNING AS CONSERVATION PRACTICE

By lowering fertility and slowing population growth among its other benefits, family planning is an essential element of sustainable conservation practice, one endorsed by many and supported by institutions and the public in countries where conservationists work. Childbearing decisions must be framed within the right of individuals and couples to make these decisions on their own, with the support of client-focused reproductive health services, and free from heavy-handed pressure or coercion. When there is firm alignment with this essential principle, there is no stigma in affirming the value of family planning in the mission of conservation.

A mobile “camel clinic” in Milgis, Kenya



Availability, acceptance and use of family planning may encourage the involvement of women in conservation, and possibly the involvement of the men in their lives as well. A 2018 paper reported results related to family planning and resilience in 16 villages near Mahale Mountains National Park in Tanzania. The project integrated traditional conservation actions with improvements in reproductive health and survey results found a roughly two-thirds greater proportion of positive attitudes toward natural resource management and conservation among respondents using, knowledgeable about, and/or with positive attitudes toward family planning, compared to those lacking such engagement with family planning. Specifically, respondents associated with family planning were much more likely than those respondents not associated to agree that:

- forests should be conserved;
- wildlife should be conserved;
- the Mahale Mountains National Park should be conserved;
- deforestation causes siltation;
- siltation harms fish;
- the national park provides benefits to the community; and
- there is sufficient forest close by to meet day-to-day needs.

The researchers concluded there were clear associations between family planning and resilience, which they interpreted as including positive attitudes about natural resources and conservation, along with social cohesion, food security, water and sanitation, women's education levels and climate change awareness.⁵⁷

This all affirms that conservationists have powerful and specific practical reasons, as well as general ethical ones, to work to improve the status, autonomy, opportunities and power of choice of women. Given the varied and powerful benefits of family planning and reproductive healthcare, it seems obvious that access to these services deserve prominence in the Gender Action Plans under development by conservation groups and requested from national governments under the Convention on Biological Diversity. Even more importantly, such prominence must follow through to action.

Erasing barriers to family planning as a conservation strategy is uniquely catalytic in addressing the threats to biodiversity and to nature itself. With its wide- and long-ranging impact, especially the multiple ways it contributes to the sustainability of conservation successes, family planning fits well with the ecosystem approach that is now recognised as a step beyond strategies focused on saving individual species.⁵⁸ This ecosystem approach is holistic and treats humans and their institutions along with all extant species as co-evolving components of ecosystems.

Removing the barriers to family planning that women face gives rise to a positive force in their communities. This force supports improvements in women's status, their own health and their children's health, as well as their ability to help conserve ecosystems and species.

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⁸⁶ Papua New Guinea National Department of Health, *Ministerial Taskforce on Maternal Health in Papua New Guinea May 2009 Report* at <http://www.health.gov.pg/publications/Ministerial%20Taskforce%20Report.pdf> (Accessed 15 May 2019)

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6. WHAT CONSERVATIONISTS CAN DO

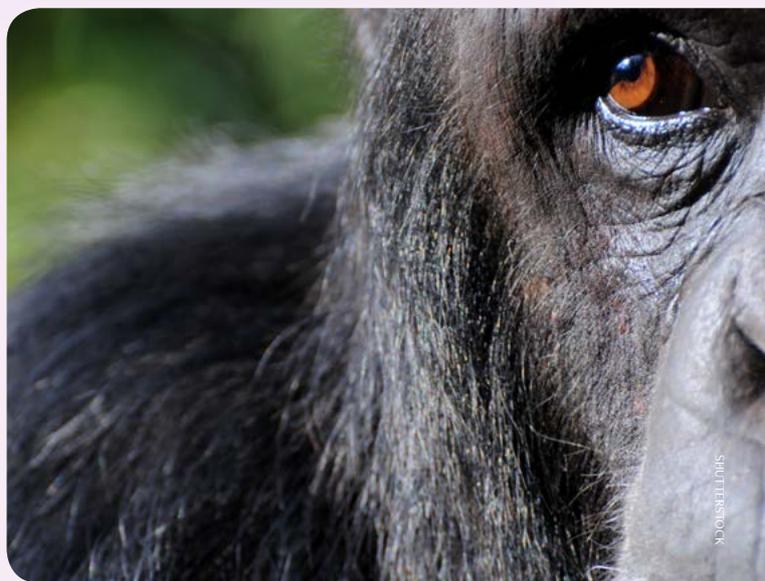
SECTION 6 KEY MESSAGES

- Population-Health-Environment (PHE)—the concept of combining conservation and natural resource management with improved access to family planning and reproductive health services—has demonstrated potential for improving wellbeing for women and their communities while at the same time contributing to conservation outcomes.
- Conservation organisations can partner with reproductive health organisations, which often seek to reach exactly the communities where conservation is a priority. The combination of activities can be attractive to these communities and must in fact respond to their priorities.
- There are opportunities for institutional education and advocacy to advance the removal of barriers to family planning. Removal of these barriers is directly relevant to biodiversity conservation.

6.1. INCLUDE REPRODUCTIVE HEALTH AND DEMOGRAPHY IN CONSERVATION PROGRAMMING

Much of the work of conservation is initiating and sustaining activities at the level of communities that most directly ensure survival of species and natural ecosystems. Help with access to and use of family planning can be among these community-based activities. Furthermore, while it may seem unexpected, this work is already taken on in many conservation projects around the world. Organisations involved include The Nature Conservancy and the Jane Goodall Institute.

With farmland expansion around Gombe Stream National Park in western Tanzania threatening the survival of the park's world-famous chimpanzees, in the 1990s, primatologist Dr Jane Goodall dispatched a team of health professionals to 22 villages surrounding the park to gauge local interest in using family planning services. The health workers were apprehensive about their mission, wondering how the idea would work among the devout Muslims, Catholics and Seventh-day Adventists living side by side in the area. The workers need not have worried. "Every single village," the team reported to Dr Goodall on their return, "said to us: 'Why didn't you come before? We need this information.'"⁵⁹



Gombe Stream National Park is famous for its chimpanzees.

Sentiments like this are often reported by conservation groups that have integrated reproductive health improvements into their conservation programming. This is anything but a novel idea—in fact, some conservation organisations began this integrative work at least as far back as the 1990s. There is a name for this, PHE (as mentioned in this section's Key Messages). Definitions of PHE may vary slightly, but the concept involves the integration of conservation and/or natural resource management activities with those improving health and health services, always including family planning and essential related reproductive health services. The latter typically include maternal and child health and the prevention of HIV and other sexually transmitted infections.

6.2. POPULATION-HEALTH-ENVIRONMENT: AN INTRODUCTION

For nearly 25 years, conservationists like Dr Jane Goodall have been linking conservation, sustainable management of natural resources and improving access to reproductive health in areas where they work. (As early as the 1970s, and in a few cases even earlier, some humanitarian and family planning organisations working in Asia pioneered the concept by introducing activities like tree-planting and soil conservation to communities in combination with improved access to reproductive health service.)⁶⁰ The concept, firmly rooted in the human rights to healthcare and personal decision-making on reproduction, has been recognised since the early 2000s in US legislative language calling for that country's governmental Agency for International Development to spend some of the funds appropriated for family planning in places “where population growth threatens biodiversity or endangered species.”⁶¹

The roots of the PHE concept go back to efforts in the 1970s and 1980s by agricultural and development groups to integrate reproductive health and natural resource management. This idea then spread to conservation groups increasingly aware of the impact of population growth on much of their work. As early as 1990 IUCN was working with the International Planned Parenthood Federation (IPPF) to consider how to address population growth and resource consumption. Following a workshop with IPPF participants in Australia, that year, IUCN published *Caring for the Earth* with WWF and UNEP. While not charting a specific path for conservation groups, the report called for “better . . . family planning services” as priority actions. It also stressed the importance of raising the legal age of marriage to 18 and affording women the “means of controlling their own fertility and the size of their families.” Moreover, it noted the importance of education, in part to counter the “strong cultural pressures on males to have large families.”⁶²

At the same time, the concept of integrated conservation and development—based on the principle that the wellbeing of human beings living in around protected areas is essential to the long-term survival of wild ecosystems and threatened species—was in ascendance among conservation groups. With health fundamental to human wellbeing, supporting improved healthcare services became a logical focus of integrated conservation and development projects. Within less than a decade after the publication of *Caring for the Earth* both WWF and Conservation International had embarked on projects including improving access in communities to family planning and other reproductive health services.

“Safidy [Community Health Programme in Madagascar in local language] is important for me because it stopped me getting pregnant. So, I can do work because I have time. I have been able to choose how many children I have... I can get money to help my family. When I have more money I can save a little bit for the future.”

Fisherwoman beneficiary of Safidy Programme, Blue Ventures

Fisherwoman in Madagascar. A beneficiary of the Safidy programme.



BLUE VENTURES / GARTH CRIPPS

6.3. PHE: CORE PRINCIPLES

The concept faced challenges both within conservation groups themselves (uncertainty and discomfort among some about the new direction) and within communities, some of whose members expressed scepticism about the conservation groups' motivation and their sensitivity to community priorities. Stumbles were inevitable. Yet the linkage evolved, eventually taking on the acronym PHE and increasingly recognising several core principles. Among these were the importance of expressed community demand for improved access to family planning and reproductive healthcare.

Community interest, of course, can be gendered. Women and men often speak to different priorities, and women were far more likely than men to prioritise the need for maternal and child health and family planning when outsiders asked about their needs.⁶³

Another principle quickly evolved: capacity-building among women in communities. Conservationists learned from the experience of humanitarian and development organisations that had preceded them in linking reproductive health with natural resource management. When representatives of World Neighbors, an agricultural development group working in four continents, first approached a community in areas where they were working, they would quickly ask to work with its women leaders. If the request baffled the male leaders of the community, they were asked to invite their wives for an appraisal of their priorities that the organisation might help them achieve. Consequently there began, as often as not, committees of women leaders in communities that had never had them before. It was often these committees that named family planning services as among their priority needs.

A key aspect of the PHE concept is partnership. Few people working in conservation fancy themselves experts in reproductive health. So it is important to start, as IUCN did in 1990, by identifying competent reproductive health service-providing organisations, ideally already operating in or near the areas where the conservation groups are working. The symbiotic nature of such partnerships is often quite attractive to reproductive health groups, motivated by a principle that nations endorsed at the 1994 UN conference mentioned above that reproductive services must be *universally available*. Conservation organisations have vehicles, community connections and knowledge that can help health workers reach remote areas, engage youth and help change social norms.

Conservationists benefit from such partnerships, too—offering communities health services they may not otherwise have, and demonstrating an interest not just in wildlife but in the humans that interact with them. From the earliest days these conservation and health partnerships have been among the most attractive and successful characteristics of PHE projects.

A key aspect of the PHE concept is partnership.

6.4. PHE: GROWTH IN THE CONCEPT

PHE projects soon sprouted across Latin America, sub-Saharan Africa and South Asia. Early on, most were initiated by international conservation, reproductive health, development and humanitarian groups. Over time, however, more organisations have linked natural resource conservation and family planning. Among the better-known are the [PHE Ethiopia Consortium](#), [PATH Foundation Philippines, Inc](#) and [Blue Ventures Conservation](#) which operates in Madagascar and other nations in the tropics.

As PHE evolved, more activities were integrated along with conservation and family planning, with special attention on food security and livelihoods. A fundamental principle observed in PHE is the need for greater agency and autonomy for women. Assuring food security, livelihood opportunities and access to contraception facilitate that agency and autonomy.

In addition to broad reproductive health activities, some PHE projects offer help with clean cook stoves or renewable energy to lessen indoor air pollution and deforestation, as well as soil conservation and tree-planting activities. Some educate on and promote practices aimed at reducing the degradation of fisheries, improving WASH (water, sanitation and hygiene), or developing and maintaining water catchment.

Anecdotes and operations research both attest to one of the most remarkable aspects of linking conservation and family planning in these projects: the improvement in communication between the sexes and the improvements in gender relations. Through them, especially when project staff includes men and women modelling inter-gender cooperation, women often learn about sustainable agriculture and conservation, while men learn about healthy and intentional reproduction.⁶⁴ The result of all of this is more and better communication between women and men, avoidance of unintended pregnancy, lower fertility, slower demographic growth and a productive investment in full community support in conservation and the activities it involves.

Weighing project feasibility typically includes consideration of basic demographic research on fertility, unmet need for contraception and other locally relevant health, environmental and social issues. Nevertheless, PHE project staff do not lecture or attempt to educate on population or its impacts, let alone urge community members to have fewer children. PHE staff instead work with communities to help them achieve their own objectives in health and the management of their natural resource base. The task is not to educate, advocate or promote views about population as such, but to remove barriers to the use of family planning for those who seek it.

6.5. PHE: STARTING THE PROCESS OF A FIRST PHE PROJECT

For conservation organisations considering how to integrate gender or health actions within their programming, the most obvious answer is PHE. We recommend:

- Perusing the many resources on PHE (see Annex 2).
- Undertaking internal and external conversations, to ensure staff, board members and donors support opening a new area of activity.
- Identifying one or more communities in which an organisation is working that might request or respond with enthusiasm to offers of assistance with family planning.
- Considering whether there are existing potential reproductive health partners with the resources, local expertise and interest in collaborating to serve these specific communities.
- Contacting the authors of this paper or other organisations involved with PHE to discuss next steps.
- Selecting a small number of interested staff to research and monitor developments in reproductive health and consider how these might fit into an organisation's work.
- Identifying experts on family planning to offer presentations or even accept a short secondment to the organisation to educate leaders and staff.
- Endeavouring to understand the local and national environment for family planning and track any developments in policies related to that and reproductive health.
- Identifying community leaders—especially women and youth leaders—with whom to discuss interest in family planning and reproductive health.
- Bringing trustees/board members and funders into all these discussions to educate them and to measure their support and enthusiasm for PHE, an essential component of any future activities in this arena.
- Hiring staff and appointing trustees with reproductive health expertise.

6.6. PHE: GEOGRAPHICAL CONSIDERATIONS

A key consideration is what makes an area or group of communities a good candidate for a PHE project. Organisations may decide to prioritise areas based on the level of risk to threatened ecosystems or species or on the relative importance of local population growth in this risk—or both. While it would make sense to start where good relationships exist, where there is an understanding of political, social and community support for family planning, and where a partnership with a locally experienced reproductive health organisation could be fostered, that is not essential. One analysis of PHE projects undertaken by WWF highlighted how PHE can provide an entry point for conservation organisations to work with communities, as a way to demonstrate good will and trust and encourage community participation.⁶⁵

“Communities’ needs are not siloed: health, environment and livelihoods are all inter-linked. We need to integrate activities in these sectors. It is what science is demonstrating and what justice is demanding.”

Negash Teklu
Executive Director, PHE Ethiopia Consortium

Deciding about engagement with PHE is initially a matter for organisational self-reflection. If that process yields an affirmation, dialogue follows with potential funders, partners and communities seeking better reproductive health and a sustainable environment. The next step may be selecting one area in which an organisation works, conceivably a development-related project already up and running, in which to introduce the PHE effort.

If choosing between existing projects, among the criteria to consider might be degree of threat to wild ecosystems and species, degree of unmet need and unsatisfied demand for modern contraception, degree of enthusiasm for help with reproductive health within project communities, availability of potential health expertise and partnerships in the area and relative feasibility and ease of project execution.

An initial project can serve a pilot project, test case or proving ground. However it is handled, the process preceding a decision to take on PHE takes effort but should lead to an unambiguous call one way or another. There is, at least, no shortage of need wherever conservation is at work.

6.7. BEYOND PHE: INTERNAL REVIEW AND LEARNING

Conceiving and developing a PHE project may not be suitable for every organisation involved in conservation. Some, after all, are more involved in research or advocacy and less (or not at all) in implementing projects on the ground, but action remains possible. However, conservation organisations can learn about family planning and its relevance to biodiversity conservation, gather staff to share thoughts and views. This is a way for organisations to learn more about cross-cutting themes, gender and the Sustainable Development Goals.

The Rivers Trust, for example, is the umbrella body of a movement working to protect, promote and enhance the freshwater ecosystems of the UK for both people and wildlife. When approached to see whether The Rivers Trust would endorse the *Thriving Together* statement (see Annex 1) the leadership of the Trust thought at first, given their focus, that it was outside

their normal comfort zone and area of expertise. Therefore, management wanted to ensure that the whole senior team was comfortable with endorsing the statement, ensuring all female staff were engaged, in particular those who had previously worked in international development.

This internal exercise led to The Rivers Trust considering the SDGs and the connections. They determined that population and spatial planning has significant impacts on water quality and water resources in the UK and that such resources are part of a shared global asset of limited freshwater. They thought about the consequential impact on the marine environment, and its resources, and how this affects us all. Having learned more about barriers to family planning, they chose to endorse *Thriving Together* and an internal discussion led to an institutional policy development.

“SafeHands leverages the power of multimedia to deliver better outcomes for women. We deliver life-saving health messages to the last mile for women that live at a distance from healthcare services. Our solar-media players use Africa’s renewable solar power to screen our films in remote settings. We welcome Thriving Together as we know when women can choose when, how and if she wants to be pregnant, she is more resilient to respond to the challenges of her environment.”

Erica Belanger
Assistant Director, Development Safe Hands for Mothers

Conservation organisations can also review their institutional vision, mission, and strategies, to ensure they allow for and encourage cross-sector work, including integration with health. It seems likely that an honest and detailed appraisal of the threats to many conservation organisations’ goals will lead to the importance emerging of responding to removing barriers to family planning.

6.8. ADVOCATING FOR CROSS-SECTORAL POLICY CHANGE

Organisations can advocate and educate their constituencies and the public by endorsing the Margaret Pyke Trust statement *Thriving Together* (see Annex 1), for which this report offers background, conceptual information and useful language. The statement recognises the importance of human health to conservation, with attention to the connection between health, people’s intentions about childbearing, population growth and the sustainability of conservation efforts. By endorsing this statement, organisations state their belief that “family planning is fundamental to human dignity and critical for human health and development” and that “[i]ntegrating reproductive health improvements with sustainable natural resource management is a valuable development approach.”

The statement also calls for improved access to data, shared information and other cooperative efforts across the conservation and health sectors—even those organisations not implementing PHE projects can show their support for erasing barriers to family planning. This brings conservation into alliance with health advocates and supplies a critically-needed voice to advocacy for women, their health and rights and sustainable human populations in balance with the environment.

Engaging with the Margaret Pyke Trust on other advocacy actions is a further possibility. One action already planned is that the Trust will offer motions based on this statement at the IUCN World Conservation Congress in 2020. All IUCN member organisations will be encouraged to endorse these motions.

6.9. INSTITUTIONAL GENDER ACTION AND STRATEGIES

Reproductive health and comprehensive sexuality education require inclusion in the development of new strategies, plans and commitments on gender. With conservationists and their organisations called under the CBD to establish gender strategies, the opportunity and need is clear. The Gender Action Plans that conservation organisations are preparing or revising should include strong endorsements of access to family planning and, ideally, specific steps to ease that access for those who seek it. Barrier-free access to family planning is an essential component of efforts to equalise gender opportunity and end discrepancies in laws, status and treatment of women and men.

Family planning is fundamental to human dignity and critical for human health and development. Integrating reproductive health improvements with sustainable natural resource management is a valuable development approach.

It is helpful simply to put this idea in writing, to enshrine it in institutional culture in major documents. The [Northern Rangelands Trust \(NRT\)](#), a membership organisation of community conservancies in Kenya, has done this with a strategic plan for 2018 to 2022. A series of internal and external consultations, the plan says, have led to the recommendation that the NRT “invest in family planning to tackle the massive challenges of population, health and environment.” The plan similarly lists family planning and reproductive health among the organisation’s development priorities and promises to help its member conservancies invest in reproductive health.⁶⁶ The plan illustrates a key point, that strategic planning provides an excellent opportunity to learn about family planning and reproductive health and to embed these where possible in objectives and work plans during the coming years.

A suggested basis for an institutional Gender Action Plan can be found at Annex 3.

6.10. NATIONAL AND INSTITUTIONAL POLICY CHANGE

In recent years, the parties to the Convention on Biological Diversity have expressly committed to integrate both health and gender into global efforts to stem the loss of biodiversity. Family planning, though unspoken in these commitments to date, is essential to the integration of both health and gender. Conservation groups can work for its more explicit mention and endorsement.

The CBD's executive secretary has called on the parties to "[m]ainstream biodiversity and health linkages into national policies, strategies, programmes and accounts."⁶⁷ The statement, prepared for the 2018 Conference of the Parties to the CBD held in Sharm-El-Sheikh, Egypt, further: "[i]nvites donor and funding agencies in a position to do so to provide financial assistance for country-driven projects that address cross-sectoral mainstreaming of biodiversity and health when requested by developing country Parties, . . ." And it seeks "to promote and facilitate dialogues on biodiversity-health approaches with relevant national, regional and subregional stakeholders, and organizations, . . ."

"Encourages Parties to consider the linkages between biodiversity and human health in the preparation of national biodiversity strategies and action plans, development plans, and national health strategies, including in line with the relevant international commitments."

[CBD Decision XII/21: Biodiversity and human health](#)

Conservationists and their organisations can support these aims. Noting that healthy human populations are best able to conserve biodiversity, they can advocate for understanding and acting on conservation's linkages with health. Furthermore, they can affirm that reproductive health, including access to family planning services, is an essential component of human health, hence essential to mention explicitly and integrate in these linkages.

One logical objective for conservation organisations is to press their own national governments and those of the countries in which they work to push for inclusion of reproductive health and family planning in any update of the CBD's 2015-2020 Gender Plan of Action. The plan currently mentions neither. The plan's preamble calls for gender-disaggregated data and "a set of preliminary indicators identified for biodiversity and gender."⁶⁸ Such indicators should include several that help illustrate the state of reproductive health, including access to basic maternal and child health services and demand satisfied for modern contraception.

The preamble also calls for the use of "case studies and best practices [that] will include information tailored for girls and women and models that promote the participation of girls and women in a meaningful, timely and effective manner." Such a call seems to cry out for the use of PHE experience around the world to illustrate best practices that can be widely replicated. The preamble closes by encouraging "the further development of synergies and a common knowledge base between the different environmental conventions" to facilitate gender mainstreaming in biodiversity conservation. Health and especially reproductive health agreements should be included in this mix for better gender mainstreaming. This is especially true given the importance of women's health and wellbeing to equal participation in conservation action.

A key objective of the Gender Plan of Action is "to promote gender equality in achieving the objectives" of the CBD and related biodiversity agreements. Gender equality can hardly become a reality for women who are subject to unintended pregnancy and poor reproductive health. This is a point that begs for more support and integration in the work of sustaining ecosystems and maintaining biological diversity.



Reproductive health

In 2016, Peace Parks Foundation embarked on a journey of discovery to learn as much as possible from Blue Ventures, a UK-based conservation agency that develops transformative approaches for catalysing and sustaining locally led marine conservation. The organisation recognises complex links between poor health, unmet family planning needs, food insecurity, environmental degradation and a vulnerability to climate change. To address these challenges holistically, the organisation developed an approach that integrates community health services with marine conservation and coastal livelihood initiatives. This collaboration led to the development of a detailed strategy to ensure that communities gain access to family planning services and contraceptives and are informed about their reproductive rights. The process identified the need for the appointment and training of community-level champions, or so-called *activistas* (community health workers). With the initial strategy as a solid roadmap, AMODEFA, a Mozambican-based non-profit organisation that specialises in community health projects, was appointed mid-2017 as an implementation partner. With support from Peace Parks Foundation, they are responsible for training and supporting 15 *activistas* as community health representatives.

The first ten *activistas* concluded their training and have taken up their new duties in villages bordering the reserves, enabling the engagement and education of over 630 women and 170 men. More than 200 contraceptive pills have been distributed, 14 contraceptive injections were issued and over 2 000 condoms were distributed between August and December 2017. This has increased overall awareness of reproductive health and access to contraceptives, which should in time result in a reduction in unplanned pregnancies.



AMODEFA, with support from Peace Parks Foundation is responsible for training and supporting 15 *activistas* as community health representatives.

Excerpt from Peace Parks Foundation's annual report

6.11. CELEBRATING PROGRESS

Whatever steps organisations take, they can report on their progress. The Peace Parks Foundation's most recent [annual report](#), for example, includes a text box (see opposite page) describing the organisation's "journey of discovery" to learn about reproductive health, access to contraception and PHE.⁶⁹

6.12. OPENINGS FOR ACTION

The strong connection between gender and the ability to use contraception suggests one opening that conservationists and their organisations can take to advocate for removing barriers to family planning. Climate change, too, provides an entry point for advocacy, as does the importance of education for all. For example:

- Individuals who are, or who know, representatives to the various regional and other IUCN commissions can promote formation of a task force within the alliance to consider more active engagement in family planning and PHE. Like the CBD, the IUCN is committed to gender equality and to mainstreaming gender.
- Biodiversity, climate adaptation and Gender Action Plans should include commitments to strengthen reproductive health, remove barriers to family planning and ensure gender equality.
- Submissions to UN and other bodies involved with environmental policy—whether governmental (e.g., the CBD and its future protocols, including revised and updated targets to replace the Aichi Biodiversity Targets) or non-governmental (e.g., IUCN resolutions)—should endorse family planning and PHE as positive conservation responses to threats to biodiversity.
- Conservation organisations should help strengthen the linkages with family planning and PHE in international efforts on climate-change mitigation and adaptation. Modest levels of climate-change adaptation funding available to low and middle-income countries could be directed to improved services and education on family planning.
- Conservationists should stand up for universal access to both primary and secondary education (with obvious benefits to the conservation of biodiversity and natural ecosystems as young people learn about them)—including comprehensive sexuality education. Sexuality education is critical to reproductive health for all and it is an important contributor to fertility decline, opportunity for girls and gender equality. A 2008 US study found that adolescents receiving sexuality education had a lower risk of pregnancy than similar students receiving abstinence-only or no sexuality education.⁷⁰
- Conservation organisations can help publicise the use of television and radio dramas that encourage smaller families while also educating on environmental conservation especially where project communities intersect with broadcast areas. The [Population Media Center](#) sponsors dramas based on strong characters and stories to demonstrate benefits of family planning and environmental conservation. The organisation has documented increases in demand for family planning where its programmes are broadcast.⁷¹
- Conservation organisations can advocate, along with health organisations, for an integrated global fund that could support a major expansion of PHE projects in low and middle-income countries.
- Within governments, conservation organisations can encourage inter-ministerial collaboration to expand, improve and promote PHE and removing barriers to family planning generally. The argument that health and environmental objectives can be more efficiently and effectively achieved by such collaboration should be well received.

There is obviously much conservationists can do to advance the vision of sustainable environmental conservation by helping to assure that women, men and young people can avoid pregnancies they do not intend and have the number of children they want. The process begins with a decision to care and to explore the many possible entry points and paths to conservation engagement in helping to secure reproductive health for all people, everywhere.

⁶⁹ Goodall, J., "Bridging the Chasm: Helping People and the Environment Across Africa," *Environmental Change and Security Program Report*, 2003, vol. 9, dxd, p. 1-5

⁶⁸ Engelman, R., *Plan and Conserve: A Source Book on Linking Population and Environmental Services in Communities*, Washington, DC: Population Action International, 1998 at <https://portals.iucn.org/library/node/23908> (Accessed 15 May 2019)

⁶⁷ United States Congress, *Congressional Record*, 4 November 2004, vol. 150, p. 22403, at <https://books.google.com/>

⁶⁶ Munro, D.A., *Caring for the Earth: A Strategy for Sustainable Living*, International Union for the Conservation of Nature, 1991 at <https://portals.iucn.org/library/node/6439> (Accessed 15 May 2019)

⁶⁵ Engelman, R., *Plan and Conserve: A Source Book on Linking Population and Environmental Services in Communities*, Washington DC: Population Action International, 1998, at <https://portals.iucn.org/library/node/23908> (Accessed 15 May 2019)

⁶⁴ Pielemeier, J. et al., *Assessment of USAID's Population and Environment Projects and Programming Options*, Washington, DC: *Global Health Technical Assistance Project*, 15 December 2007, at https://www.k4health.org/sites/default/files/crco4_PielemeierHunter_Eval%20PH%20projects_PDACL432.pdf (Accessed 15 May 2019)

⁶³ Ogilthorpe, J., Honzak, C., and Margoulis, C. *Healthy People, Healthy Ecosystems: A Manual on Integrating Health and Family Planning into Conservation Projects*, 2008, https://c402277ssl.c1.rackcdn.com/publications/370/files/original/Healthy_People_Healthy_Ecosystems_A_Manual_on_Integrating_Health_and_Family_Planning_into_Conservation_Projects.pdf?1345737357 (Accessed 15 May 2019)

⁶² Northern Rangelands Trust, *Strategic Plan 2018-2022*, at <https://static1.squarespace.com/static/5af1629f12b13f5ce97ca0b5/t/5c0674fdoe2e72a9c58e6215/1543927424016/Strategic+Plan.2018-22.November.FINAL.LowRes.pdf> (Accessed 15 May 2019)

⁶¹ Convention on Biological Diversity, "Health and Biodiversity: Draft Decision Submitted by the Chair to Working Group II," 14th Convention of the Parties, Sharm-El-Sheikh, Egypt, 17-29 November 2018, Agenda Item 22, CBD/COP/14/L.4

⁶⁰ Convention on Biological Diversity, "Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity", Twelfth Meeting, Pyeongchang, Republic of Korea, 6-17 October 2014, Agenda Item 17, XII, 7: Mainstreaming Gender Considerations, UNEP/CBD/COP/DEC/XII/7, 17 October 2014, at <https://www.cbd.int/gender/action-plan/> (Accessed 15 May 2019)

⁵⁹ Peace Parks Foundation, *Peace Parks Foundation Annual Review 2017: Reconnecting Africa's Wild Spaces to Create a Future for Man in Harmony with Nature*, Stellenbosch, South Africa, at <https://www.peaceparks.org/wp-content/uploads/2018/10/2017-Peace-Parks-Annual-Review-web.pdf> (Accessed 15 May 2019)

⁷⁰ Kohler, P.K., Manhart, L.E., and Lafferty, W.E., "Abstinence-only and Comprehensive Sex Education and the Initiation of Sexual Activity and Teen Pregnancy", *Journal of Adolescent Health*, 2008, vol. 42, no. 4, pp. 344-51, at [https://www.jahonline.org/article/S1054-139X\(07\)00426-0/fulltext](https://www.jahonline.org/article/S1054-139X(07)00426-0/fulltext) (Accessed 15 May 2019)

⁷¹ See <https://www.populationmedia.org/>

7. THRIVING TOGETHER

In this report we have sought to provide a case for significant and permanent engagement between the environmental conservation and reproductive health communities. We have urged conservationists to work for the removal of barriers to the use of contraception to promote personal reproductive decision-making and the avoidance of unintended pregnancy. We have endeavoured to demonstrate that promoting not just physical but social access to family planning is a natural activity for conservation organisations, due to the catalytic benefits it offers to individuals, their families, their communities and, not incidentally, to the future of natural ecosystems and species.

Several points merit reiteration:

- Few people would argue that parents, real or potential, should not be able to exercise their fundamental right to choose if, when and with whom to have children. Many conservation organisations have promoted this right for years.
- To advocate for family planning is consistent with human rights. To call for the removal of barriers to contraceptive use is simply to work for conditions that allow closer symmetry between pregnancy outcomes and parents' reproductive desires. The point is for individuals' and couples' reproductive intentions to be realised, not the demographic objectives of anyone else.
- In an elegant synergy between individual desires and collective wellbeing, by supporting all people's reproductive intentions, conservation groups can contribute to their own long-term mission success. With an estimated two in five pregnancies unintended worldwide, fully intentional pregnancy would mean much lower fertility and a significant, imminent slowdown in the growth of human population. The less unintended pregnancy—worldwide, in any nation, in any community or group of communities—the less population growth.
- Family planning powerfully contributes to the health and survival of women and children, which facilitates the community wellbeing that makes integrated conservation and development possible. It also empowers women to take charge of their own time, education, community engagement, careers and futures, furthering the likelihood that they will become agents of conservation.
- Conservation groups have helped pioneer a concept—PHE—that has contributed to natural resource management, environmental conservation and reproductive health, including uptake of family planning.
- Barriers to family planning lead to human population growth and are therefore conservation issues. PHE is conservation's most effective programmatic response. Its benefits include not just reduced fertility but improved health and opportunity, especially for women. There is massive potential to expand PHE throughout low- and middle-income countries.
- Even without implementing PHE projects, conservation organisations can contribute to an improved environment for family planning. They can work to educate staff and trustees on the concept. They can develop partnerships with those in the health sector working to make sure that access to family planning is barrier-free. They can speak up for family planning and sign statements along the lines of the Margaret Pyke Trust's Thriving Together. They can advocate for PHE within the conservation community, with funders and with government at all levels.

The vision of conservationists is a long and ambitious one, grand and global in scope. We work to bring about a world that is truly sustainable: perpetually biologically rich, free from human-caused extinction and ecosystem loss, leaving space and caring for a natural world that sustains humanity and all the world's species for millennia to come. There is much work to be done to achieve such a world.

Human population growth is hardly the sole threat to loss of ecosystems or to the extinction of species. Moreover, family planning is not a panacea for all environmental conservation challenges. Yet there are many conservation sites in which population growth is a major, in some cases arguably the major, agent of risk. And there is no doubt that in such areas better access to a wider availability of modern contraception can ease that risk.

Removing barriers to family planning means emplacing a social environment in which the use of contraception is normalised and easy to access for all who seek to empower their reproductive decisions. Family planning is not so much a “solution” as a positive and powerful response to the challenges that both conservation and development face. It is a response that brings the world that conservation envisions closer and adds mightily to the hope that such a world can be achieved and sustained.

ANNEX 1

THRIVING TOGETHER: ENVIRONMENTAL CONSERVATION AND FAMILY PLANNING

As at July 2019, around 150 organisations working in conservation, reproductive health and population had endorsed this statement. The website ThrivingTogether.Global has the latest status.

People and nature are interdependent, and health underpins both. Human communities and ecosystems best support each other when the needs of each are met in tandem.

We know that:

- Successful biodiversity conservation requires taking into account people, our health, and our interactions with the natural world.
- The United Nations considers it likely that the world population will rise from 7.7 billion today to 9.8 billion by 2050. Most of this growth will be in low and middle income nations.
- Poor rural communities in developing nations face the greatest barriers to use of and access to reproductive health services, including family planning. These barriers prevent women from choosing freely when and whether to have children, threaten family health, create challenges for girls who want to complete their education, and lead to higher levels of fertility and more rapid rates of population growth.
- Poor rural communities often depend most directly on natural resources for their livelihoods, food, water, shelter and cultural practices. When localised, or combined local and global human pressures on ecosystems intensify, both community health and environmental health suffer.
- There is very often an overlap of areas facing the greatest need for improved reproductive health services and for conservation.
- Family planning contributes to women's empowerment, improves family and general health, advances education and life opportunities and, by slowing population growth, eases pressures on wildlife and ecosystems. Sustaining functional, biodiverse environments becomes less plausible in some areas if population growth follows average UN projections.
- As agreed at the 1994 UN International Conference on Population and Development, family planning must be grounded in human rights and reproductive intentions, the fundamental basis for collaborative cross-sector activities.
- Some conservation and reproductive health organisations have joined forces to combine activities. Project data shows this has led to increased family planning use, improved health and gender relations, and increased support for and participation in conservation. These multisector approaches can be more cost-effective, and generate more sustainable results.

We believe that:

- Like education and nutrition, family planning is fundamental to human dignity and critical for human health and development.
- Population data are among the relevant evidence when considering health and conservation action.
- Increasing human pressures are among the many challenges facing planetary health. By harming ecosystems we undermine food and water security and human health, and we threaten habitats and species. Ensuring family planning is available to all who seek it is among the positive actions we must take to lessen these pressures.
- Integrating reproductive health improvements with sustainable natural resource management is a valuable development approach.

We acknowledge that the future health of our planet has never been more uncertain, and that the health of people and ecosystems are connected. The Sustainable Development Goals call for integrated solutions. We work in health, conservation and related fields and believe that by sharing information and working together on strategic projects and policies we can help human communities and their ecosystems thrive.

ANNEX 2 LEARNING RESOURCES FOR PHE

LEARNING RESOURCES FOR PHE

VIDEOS

Among the earliest videos on PHE was Population Action International's Finding Balance: Forests and Family Planning in Madagascar, available at <https://pai.org/videos/finding-balance-forests-family-planning-madagascar/>.

More recent videos and archived webinars on PHE are available through the Woodrow Wilson International Center for Scholars, <https://www.wilsoncenter.org/program/environmental-change-and-security-program> and Population Reference Bureau (PRB), <https://www.prb.org/people-health-planet/>.

PRB's 2018 video on Pathfinder International's HoPE-LVB project in the Lake Victoria Basin is available at <https://www.youtube.com/watch?v=pYWN4t7cPDI>. For an example of PHE in Kenya, see <https://www.prb.org/for-sustainable-development-in-kenya/>.

E-LEARNING

A partnership for global health learning sponsors a web-based course on PHE at <https://www.globalhealthlearning.org/course/population-health-and-environment>. The course is available in French and Spanish as well as English (note the language option box on the upper right of the main page).

READING

PRB also makes available a general toolkit for learning about and applying PHE at <https://www.prb.org/new-population-health-and-environment-phe-toolkit-launched/>.

A 2015 PRB report on the evidence of PHE impact is available at <http://evidenceproject.popcouncil.org/wp-content/uploads/2015/06/PHE-Synthesis-Report1.pdf>.

A policy brief on engaging youth and enhancing their leadership in PHE is available at <https://www.prb.org/wp-content/uploads/2018/11/PRB-PolicyBrief-Youth-Leadership.pdf>.

Older but still useful policy briefs on PHE experience in specific countries are also available, for example Tanzania at <https://assets.prb.org/pdf/07/phe-tanzania.pdf> and Kenya at <https://assets.prb.org/pdf/07/phe-kenya.pdf>.

Conservation International published in 2008 a report on incorporating gender in PHE projects, available at https://www.conservation.org/publications/Documents/CI_gender_and_conservation_experiences.pdf.

ANNEX 3 CREATING OR REVISING AN EXISTING GENDER ACTION PLAN

Gender equality, according to UNESCO, means “that women and men have equal conditions for realizing their full human rights and for contributing to, and benefiting from, economic, social, cultural and political development”. UNESCO defines gender equity as “the process of being fair to men and women. To ensure fairness, measures must often be put in place to compensate for the historical and social disadvantages that prevent women and men from operating on a level playing field. Equity is a means. Equality is the result.”⁷²

Barrier-free access to family planning is essential to ensure gender equality and gender equity. Gender Action Plans help embed gender equality and equity in the workplace and within conservation programming. Sometimes collaborating with a specialist reproductive health organisation will be the most effective way not only to contribute to gender quality and equity at the project site level, but also to strengthen conservation outcomes, community engagement, public health and equalise opportunity for girls and women. Conservation organisations can take the following steps to create or revise a Gender Action Plan.

IT STARTS AT HOME

Organisations should consider including in their Gender Action Plan requirements that:

- leadership and other structures are diverse, including gender diverse (such as a policy ensuring women make up at least 50 per cent of leadership structures);
- the workplace is free from discrimination and harassment;
- human rights are respected and promoted in all work, including recognition that barrier-free access to family planning is a human right;
- organisational and senior staff have memberships to relevant national women’s conservation networks, or that such networks be established;
- key staff and board members are given express responsibility for gender issues;
- training on all these issues is held; and
- organisational developments in this field should form part of annual reporting.

IMPLEMENTING THE COMMITMENT TO GENDER EQUALITY IN CONSERVATION PROGRAMMING

It is important to consider gender equality and equity when developing programmes. Organisations should consider including in their Gender Action Plan requirements that:

- community engagement and community capacity building activities, as well as any community conservation committees, have equitable gender participation;
- the interests of women and vulnerable groups are incorporated into programme design;
- access to and use of natural resources is equitable as well as sustainable;
- data is disaggregated by gender, and gender considered when planning, designing, monitoring and evaluating projects;
- mapping exercises be undertaken of existing programmes to determine which are implemented in areas where communities face particular barriers to family planning;
- analysing local reproductive health need is a requirement when developing new programmes; and
- partnerships with health and family planning organisations are considered, based on the above.

⁷²UNESCO’s Gender Mainstreaming Implementation Framework, Last updated April 2003 <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/BSP/GENDER/PDF/h%20Baseline%20Definitions%20of%20key%20gender-related%20concepts.pdf> (Accessed 15 May 2019)

