



## A CLOSER LOOK AT THE NUMBERS

### GENDERCC DISCUSSION PAPER ON POPULATION GROWTH, CLIMATE CHANGE AND GENDER

NOVEMBER 2011

An increasing number of individuals and organisations are painting overpopulation as a key driver of climate change, and are promoting increased family planning policies and limits on population growth as a key solution to climate change. GenderCC has serious concerns about these propositions, which divert attention away from the main causes of climate change and have the potential to impede a rights-based approach to family planning.

This discussion paper focuses on arguments about the contribution of population growth to climate change – that is, its relevance for climate change mitigation. It does not deny that population growth is likely to exacerbate a number of existing social and environmental pressures. It argues that population growth *per se* is not a major contributor to climate change, and that a focus on overpopulation as a climate change threat masks the much more critical role played by overconsumption.

GenderCC fully supports voluntary family planning. However, this paper rejects the coupling of increased family planning with reduced greenhouse gas emissions and argues that family planning must not be reframed as a climate change solution.

### **It's not a simple case of numbers...**

It is well known that the number of people on the planet is growing, with global population now around 7 billion – a higher level than ever before. United Nations projections indicate that the world's population could reach approximately 9.3 billion by 2050 and 10.1 billion by 2100.<sup>1</sup>

The relationship between population and climate change involves the complex interaction of many factors, and there is a worrying tendency for this relationship to be oversimplified. Some advocates of population control suggest that there is a direct correlation between population growth and

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<sup>1</sup> See the United Nation's *World Population Prospects: The 2010 Revision* (United Nations Department of Economic and Social Affairs, Population Division). These are the projections for the medium fertility variant. Note that even small changes in fertility can have large impacts on population levels in the long term.

[http://esa.un.org/unpd/wpp/Other-Information/Press\\_Release\\_WPP2010.pdf](http://esa.un.org/unpd/wpp/Other-Information/Press_Release_WPP2010.pdf)

Note also that these projections have been questioned by some demographers - see, for example, Fred Pearce, 'Dubious assumptions prime population bomb.' *Nature* 473, 125 (2011).

<http://www.nature.com/news/2011/110511/full/473125a.html>

emissions growth – the implication being that each new person consumes a set amount of resources and is responsible for a set amount of emissions. This, however, is not the case – the relationship between population and greenhouse gas emissions is not linear.

A person's contribution to climate change is determined by a whole range of factors and not simply the fact that they constitute an extra 'number' on the planet. Demographic factors such as age, income, household size, gender, consumption, level of urbanization and level of development all play a role in determining a person's carbon footprint. Depending on the interaction of these factors, the lifetime contribution of different people to greenhouse gas emissions can vary greatly.<sup>2</sup>

As an example, per capita carbon dioxide emissions in 2007 were 19.0 tonnes for Australia (a developed country with low fertility) compared to just 0.3 tonnes for Kenya (a developing country with high fertility).<sup>3</sup> Accordingly, the difference between the contribution that one person in Australia makes to climate change, compared to one person in Kenya, is enormous. This is just one comparative example, but it illustrates the general trend that countries with high fertility tend to be responsible for a very low proportion of global emissions (as discussed further below).

Thus, when we consider causes of and influences on global greenhouse gas emissions, a focus simply on the *number* of people in the world leads to a superficial and flawed picture of the way population contributes to climate change.

### **A false and illogical 'solution'**

Anthropogenic climate change is caused by an increase in human-induced greenhouse gas emissions, primarily as a result of fossil fuel combustion and land-use change. It is the production and consumption of resources in the developed world that has generated the majority of these emissions. Indeed, when historical emissions are taken into account, the industrialised global north is responsible for around 80 per cent of global emissions, even though it contains only around 20 per cent of the world's population.

A focus on overpopulation is a distraction from the main causes of climate change and inhibits the implementation of effective climate change solutions. As the United Nations Population Fund has noted: "What is generally not understood ... is that in many cases, the expectation that [climate change] can be significantly alleviated through population stabilisation is not founded on demographic realities and can divert attention from other necessary approaches to mitigation."<sup>4</sup>

Indeed, stabilising population levels will do practically nothing to address the high level of emissions that continues to be generated by the global north. This is because high-consuming, high-emitting developed countries – who need to be making the deepest cuts in emissions – are now generally exhibiting minimal or no population growth.<sup>5</sup> In most developed countries, fertility rates have dropped below replacement levels – in Europe, for instance, the fertility rate is now approximately

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<sup>2</sup> See David Satterthwaite, 'The implications of population growth and urbanization for climate change'. In Guzman et al (ed.). *Population Dynamics and Climate Change* (United Nations Population Fund and International Institute for Environment and Development, 2009), p 59. Satterthwaite suggests that a person's contribution to greenhouse gas emissions over their lifetime can vary by a factor of more than 1,000.

<sup>3</sup> United Nations Statistics Division. *Environmental indicators - CO2 emissions in 2007*.

[http://unstats.un.org/unsd/environment/air\\_co2\\_emissions.htm](http://unstats.un.org/unsd/environment/air_co2_emissions.htm)

<sup>4</sup> United Nations Population Fund. *UNFPA Statement. Population and climate change - Framework of UNFPA's agenda* (2008), p 2. [http://www.unfpa.org/pds/climate/docs/climate\\_change\\_unfpa.pdf](http://www.unfpa.org/pds/climate/docs/climate_change_unfpa.pdf)

<sup>5</sup> A notable exception is the United States, which is still exhibiting medium fertility.

1.6 children per woman.<sup>6</sup> Thus, instead of leading to a reduction in developed countries' emissions, policies aimed at population control will primarily target population groups with high fertility in developing countries. From a mitigation perspective, this makes very little sense, since these people are responsible for a very low level of emissions.

Although the emissions of large developing countries such as China and India are still well below those of most developed countries on a per capita basis, they are increasing rapidly. However, like much of the world, fertility in these countries has already dropped significantly over the past half century. Given this trend, the primary focus for climate change mitigation in these countries should be on low-carbon development. In this context, we must remain mindful of developing countries' right to develop, whilst working towards getting developed countries' per capita emissions down to a 'fair share'.

Instead of overpopulation, then, our points of focus for climate change mitigation should be *overconsumption* and *fossil fuel dependence*. Solutions to climate change must reduce consumption in developed countries and transition economies (including developing economies) away from emissions-intensive products and services. In particular, the de-carbonisation of the energy and transport sectors is critical.

## Declining rates of population growth

As part of this discussion, it is crucial to note that the *rates* of global population growth and global fertility have dropped significantly over the past few decades. Total global fertility for 2005-2010 was 2.52 children per woman, compared to 4.95 children per woman in 1950-1955.<sup>7</sup> Only 18 per cent of the world's population now lives in countries with high fertility,<sup>8</sup> and most of these countries are in sub-Saharan Africa, where per capita (and indeed overall) emissions are generally significantly less than those of developed countries. The primary reason that global population is still growing – despite this declining fertility in most parts of the world – is that there is currently a large proportion of young people of reproductive age.<sup>9</sup>

The issue of whether continued high fertility in some developing countries may place a greater burden on these nations in terms of responding to and coping with climate change is a very real one. It is widely acknowledged that developing countries are likely to be hardest hit by climate change, and higher population obviously means more people exposed to climate impacts. A greater number of people is likely to exacerbate existing pressures relating to issues such as environmental degradation, food and water security, and human health. Reductions in population growth in these countries (stemming from non-coercive policies that uphold the rights-based approach to family planning) may help to ease some of these pressures, from the international right down to the household level. However, these considerations are different to the question of effective climate change mitigation, for which population growth is much less relevant.

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<sup>6</sup> This was the fertility rate in the EU for the year 2008. See Eurostat News Release, *Demography Report 2010: Latest figures on the demographic challenges in the EU*. 1 April 2011.

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_PUBLIC/3-01042011-BP/EN/3-01042011-BP-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-01042011-BP/EN/3-01042011-BP-EN.PDF)

<sup>7</sup> United Nations Population Division. *World Population Prospects: The 2010 Revision. File 1: Total fertility by major area, region and country (children per woman)*. [http://esa.un.org/unpd/wpp/Excel-Data/DB01\\_Period\\_Indicators/WPP2010\\_DB1\\_F01\\_TOTAL\\_FERTILITY.XLS](http://esa.un.org/unpd/wpp/Excel-Data/DB01_Period_Indicators/WPP2010_DB1_F01_TOTAL_FERTILITY.XLS)

Note that the replacement fertility rate is generally considered to be 2.1 children per woman.

<sup>8</sup> See *World Population Prospects: The 2010 Revision*, Press Release, p 1. [http://esa.un.org/unpd/wpp/Other-Information/Press\\_Release\\_WPP2010.pdf](http://esa.un.org/unpd/wpp/Other-Information/Press_Release_WPP2010.pdf)

<sup>9</sup> This effect is referred to as 'population momentum'.

## Unfair transfer of responsibility

Because of the population growth and fertility trends outlined above, a focus on population stabilisation as a climate change solution may result in responsibility for climate change mitigation being shifted from the global north to the global south. Given that the global north is the source of most historical greenhouse gas emissions – and thus largely responsible for the current climate crisis – this would be a deeply unethical outcome. This potential shifting of responsibility is all the more unjust for the fact that developing countries in the global south are likely to be the worst affected by climate change.

There is a particular danger that poor women in the global south – who tend to be blamed most for the ‘population explosion’ – will be viewed in a negative light as key contributors to climate change. A population-centric view of the climate problem also fails to take into account the fact that some groups of people – particularly indigenous populations in developing countries – actually have a positive impact on the environment through environmental stewardship.

## Family planning for the right reasons

Generally, population control policies rely on voluntary family planning programmes for their implementation. Reproductive rights – including the right to have access to safe, effective, affordable and acceptable methods of family planning of choice – are crucial to the health and wellbeing of women and men.<sup>10</sup> There are currently over 200 million women in the world who are unable to use safe and effective family planning methods, despite having the desire to do so.<sup>11</sup> Increased access to family planning and reproductive health services can present multiple benefits, including improved health outcomes for women.

However, increased family planning will not lead to meaningful and effective climate change mitigation. Further, framing climate change as a problem of overpopulation poses a threat to women’s sexual and reproductive rights and may lead to coercive policies. Climate-centric family planning has the potential to hijack reproductive health policies and weaken the rights-based approach endorsed at the International Conference on Population and Development in Cairo in 1994.<sup>12</sup>

As such, the coupling of family planning policies with climate change mitigation policies must be opposed. Placing women’s fertility at the centre of climate change mitigation is a dangerous (as well as ineffective) step because women’s bodies – particularly those of poor women in developing countries – become simply the means for the rapid reduction of fertility and population numbers. In this context, family planning programmes are unlikely to place the health, wellbeing and rights of women at their core. For instance, women may only be provided with limited contraception options that carry particular health risks or are unsuitable for their personal circumstances.

All women should have genuine access to family planning, but this must not be treated or re-framed as a climate change solution.

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<sup>10</sup> According to the Programme of Action of the International Conference on Population and Development (Cairo, 1994), the aim of family planning is “to enable couples and individuals to decide freely and responsibly the number and spacing of their children and to have the information and means to do so and to ensure informed choices and make available a full range of safe and effective methods”. See paragraphs 7.12-7.26. <http://www.un.org/popin/icpd/conference/offeng/poa.html>

<sup>11</sup> United Nations Population Fund. *Reproductive Health*. <http://www.unfpa.org/rh/planning.htm>

<sup>12</sup> For further information on the International Conference on Population and Development, see <http://www.un.org/popin/icpd2.htm> and <http://www.unfpa.org/public/icpd>.

## The way forward

Crucial to the dialogue on population growth and climate change is the recognition that different people in different countries are contributing - and have contributed in the past - to climate change in vastly different ways. A mere focus on numbers will not give us a clear picture of the way population growth and dynamics influence climate change and will not accurately inform mitigation policy development. Far more determinative in terms of greenhouse gas emissions is the level of consumption of emissions-intensive products and services, which is typically much higher in developed countries (generally with low fertility) than in developing countries (more likely to have high fertility).

We must be cautious about the messages that are being projected regarding climate change and population growth. Certainly, there may be a number of advantages from slower or negative population growth in many parts of the world, including positive environmental outcomes and reduced social pressures. However, statements such as “smaller families would lead to substantial cuts in carbon emissions”<sup>13</sup> or “increasing access to voluntary family planning will contribute over time to ... the reduction of climate change”<sup>14</sup> are misleading and in fact do not reflect the complex demographic and emissions trends outlined in this paper.

In any case, efforts to lower fertility rates and reduce global population would not have any practical effects for some time - time that we cannot afford to lose in combating climate change. Until high-emitting nations make binding commitments to significantly reduce their emissions, placing population at the forefront of the mitigation debate is distracting and will lead to ineffective and potentially unjust outcomes. Population stabilisation is a non-solution that may have the effect of scapegoating marginalised groups - such as poor women in developing countries - who are least responsible for climate change. Further, treating increased family planning as a means of climate change mitigation would potentially move us away from the rights-based approach endorsed through the United Nations, whilst also providing a smokescreen for the action that really needs to take place - reduced consumption, low-carbon economic transition and a fundamental shift towards more ecological and equitable ways of living.

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GenderCC - Women for Climate Justice

GenderCC is the global network of women and gender activists and gender experts from all world regions working for gender and climate justice.

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<sup>13</sup> Jenny Tonge, “It is not coercive to argue for better family planning worldwide.” *The Guardian*, 10 October 2011. <http://www.guardian.co.uk/commentisfree/2011/oct/10/family-planning-population-growth>

<sup>14</sup> United Nations Population Fund. *Fact sheet: Climate change and women*. <http://www.unfpa.org/public/cache/offonce/home/factsheets/pid/4733>