ISLAMIC PERSPECTIVES ON CURBING POPULATION GROWTH TO PROMOTE EARTH'S SUSTAINABILITY

Daud Abdul-Fattah Batchelor*

Abstract: In Muslim countries, rapid population growth is exacerbating environmental problems. Therefore, the *ummah* needs to reduce its population growth to safeguard Earth's sustainability. To that end, family planning measures have been successful in reducing population growth in Muslim countries to levels that promote societal well-being, with better women's health and healthy, educated children. A review of Islamic perspectives shows that birth control methods were approved by Prophet Muhammad (pbuh), such as birth-spacing intervals and non-permanent contraception, and Islamic states have promoted or discouraged family planning according to socio-economic needs. However, research is required to determine ideal national fertility rates to promote stability and environmental protection. Certain Western countries are active in national programmes to curb Muslim population growth. These should be monitored and terminated if they yield unacceptably low fertility levels. Ultimately, *mujtahid* scholars need to urgently review classical positions to allow the *ummah* to curb its population growth.

Keywords: Anthropogenic Epoch, contraception, CPR, Earth's ecosystems, extinctions, family planning, fertility, Indonesia, Iran, Islam, Nigeria, population growth, shariah, sustainability, TFR.

Introduction

Clear evidence shows the severity of widespread human-induced environmental degradation to the extent that the present period is called the 'Anthropocene Epoch'. Two factors that appear to contribute to this degradation are, firstly, human population growth and, secondly, meat consumption. At first glance, both seem to be promoted by Islamic teachings – firstly, to populate the Earth and multiply; and secondly, to perform animal sacrifices and consume meat.

This article reports on research into reducing environmental degradation by curbing population growth. A separate article addresses the issue of meat consumption. We ask "Is it not time to reappraise Islam's position on these matters, whether they are really in tune with Islam, which desires the promotion of the public good (*maslahah*) and the prevention of harm?"

Islamic Teachings on Environmental Stewardship

Islamic belief in the Unity of the Creator, *tawhid*, leads to the Unicity of Nature concept. Harmony in our complex world points to God's teleological design, which makes the world full of meaning. We therefore should show Nature great respect. The Qur'an states:

The seven heavens and earth and all beings therein, glorify Him; there is not a thing but celebrates His praise. But you understand not their glorification. (al-Isra' 17:44)

When God created Adam He appointed his progeny to be Earth's guardians (*khalifatu'Llah*) entrusted with a heavy responsibility (*amana*) to care for its creatures. Prophet Muhammad (pbuh) advised his followers to restrict consumption of Earth's resources to their needs, without wasting. This concept requires moderation to maintain the natural balance (*mizan*) and warns that transgressing it can have disastrous consequences.

He raised the sky high, and devised (for all things) a balance, so never transgress the balance: weigh therefore (your deeds) with equity, and do not upset the balance. (al-Rahman 55:7-9)

The term used to signify Qur'anic verses, *ayat*, also means signs within the souls of men as well as in natural phenomena. Islam, by refusing to separate man from nature, has preserved an integral view of the universe, as follows:

Surely in the creation of the heaven and earth and alternation of night and day there are signs for men of understanding, who remember God and mention His name, standing, sitting and on their sides, and reflect upon the creation of the heavens and the earth: "Our Lord, you have not created this vainly." (Ali Imran 3:190-191)

Modern man no longer regards Nature as sacred. The consequential void within human souls manifests itself harshly in the destruction of natural beauty. When man's inner being darkens, resulting from a materialistic conception of man and nature, nature is turned from harmony and beauty to disequilibrium and disorder.¹ Pollution and injustice against Earth's creatures result from corruption in human hearts. The Qur'an states:

Corruption has appeared on land and sea because of what human hands have earned so (God) may let them taste part of [the consequence of] their deeds that perhaps they will return [to righteousness]. (al-Rum 30:41)

As Earth's stewards, we should return Earth's ecosystems to balance, which would be reflected in the attainment of peace in our own hearts.

Environmental Impact of Human Population Growth

Planet Earth is suffering from environmental degradation on a massive scale, reducing its ecological sustainability. These impacts from human activities have led scientists to propose the name, 'Anthropocene Epoch' ('age of man'), extending from 1950 to the present, dating from commencement of substantial alteration of the Earth's surface.² Impacts include anthropogenic climate change, depletion of water and fishery resources, destruction of forests, biodiversity loss, and alarming waste generation.

Protecting Earth's biodiversity means protecting both the natural environment and human beings, since the latter are an integral element of, and depend on, the former. Animals and plants provide us with food and medicine, and purify our water and air while absorbing carbon emissions.³

Environmental Degradation, Population Growth And Consumption

This study examines the links between population increase and environmental quality. A simple formula relates the scale of Environmental Impacts (I) as a function of Population (P), Technology (T), and Affluence or Consumption (A): I = f (P, A, T).⁴ Rising global affluence (A) is a significant cause of environmental degradation.⁵ Numerous studies⁶ also confirm that direct relationships exist between population growth and increased carbon dioxide emissions.⁷

The United Nations (UN) estimates world population to grow from 7.4 billion (2015) to 11.2 billion by 2100.8 The UN Population Fund highlighted that the wealthiest countries, with <20% of Earth's population, "account for 86% of natural resources consumption – much of it wasteful – and produce the majority of pollution and carbon dioxide." Many scientists believe that the largest threat to Earth's ecology is global climate disruption due to human-generated greenhouse gas emissions (GHGs). People are responding by reducing their carbon footprint but "we not only need smaller footprints, but fewer feet."

Conservation biologist, Thomas Lovejoy, highlighted the link between population growth, vulnerable ecosystems and climate change: "it's the poorest areas...that disproportionately feel the effects of climate change. Over-exploitation and habitat loss as a result of population pressures is also accelerating the extinction of plant and animal species, undermining the poor in parts of the world where people are heavily dependent on nature for livelihoods. Areas of rapid population growth overlay those with high numbers of threatened and vulnerable plant species." ¹¹

	CO ₂ tonnes	per capita	Ecological Footprint (global hectares) ¹²		
Country	200013	201414	2012	c2014	
Australia	17.2	15.4	9.3	6.9	
Indonesia	1.2	1.8	1.6	1.6	
Iran	5.7	8.3	2.8	3.4	
Malaysia	5.4	8.0	3.7	4.4	
Nigeria	0.6	0.6	1.2	1.1	
UK	9.2	6.5	4.9	4.8	
USA	20.2	16.5	8.2	8.4	

Table 1. Carbon and environmental footprints of citizens of selected countries

Table 1 shows the change in per capita emissions of carbon dioxide for key countries between 2000 and 2014; also their ecological footprints between 2012 and 2014. Eco-footprint is the impact of human activities measured in terms of the area of biologically productive land and water required to produce the goods consumed and to assimilate wastes generated. Biocapacity is the capacity of a given biologically productive area to generate renewable resources and absorb waste. In 2012, Earth's biocapacity was 1.7 global hectares per capita, while the average citizen's eco-footprint was 2.8 global hectares, indicating an alarming deficit. Demands from strong population growth are outrunning Earth's biocapacity.

Climate scientists make the case against having many children by highlighting their environmental impact. Murtagh and Schlax argued that the 'carbon legacy' of individuals includes not only their own lifetime GHG emissions, but also the shared emissions of any children they have. They estimated that CO₂ emissions added by having a single child range from 56 tonnes (Bangladesh) to an excessively high 9441 tonnes in the United States. Not surprisingly, US Congress member, Alexandria Ocasio-Cortez, stated publicly in March 2019 that climate change is forcing many young people in the United States to reconsider having children. 19

Major Human Impact Examples

Increasing water demand is directly related to human population growth, which needs more water to grow more food and livestock. Kummu and others analysed trends in water shortage over the past 2,000 years. They found that since 1960 water shortages increased extremely rapidly with the proportion of the global

population living under condition of chronic water shortage increasing from 9% in 1960 to 35% in 2005. Their analyses showed that effects on water shortage due to population changes over this period are much greater, being four times as important, as those resulting from long-term climate change.²⁰

Another example is Lake Chad, formerly the world's 6th largest lake spanning Chad, Nigeria, Niger and Cameroon. It contracted by 90% since the 1960s affecting its 20-30 million beneficiaries. Half of the shrinkage was caused by high water demand due to population increase and irrigation.²¹

Researchers also found that a severe 'biological annihilation' of wildlife has occurred. Earth has lost billions of mammals, birds, reptiles and amphibians. "Wildlife is dying out due to habitat destruction, overhunting, pollution, invasion by alien species and climate change." Scientists warn that "the ultimate cause of all these factors is human overpopulation and continued population growth and overconsumption, especially by the rich."²²

Family Planning Needs in the Developing World

The arguments provided above strongly support the need for strategies to reduce rapid population growth in the developing world so as to avoid further environmental harm. Our examination concurs with Worldwatch Institute's 2016 report, "Family Planning and Environmental Sustainability" (FPES). The report, an assessment of 939 peer-reviewed articles, reveals that the overwhelming majority of researchers who explore relationships between population growth and environmental degradation (or resource scarcity) either find empirically or assert that population growth is an influential factor in environmental degradation. Another FPES finding is that "Slowing population growth tends to lessen the risk of dangerous environmental changes and to enhance the potential for societal resilience to climate change, water scarcity, food insecurity, the loss of biological diversity, and related threats."²³

Thomas Lovejoy argued that slower population growth could significantly reduce future GHG emissions: "More than 200 million women in developing countries want to avoid pregnancy, but need modern contraception. The emissions reductions that could be expected through meeting these family planning needs would be roughly equivalent to the reductions that would come from ending all tropical deforestation." He estimated that whereas solar power costs to reduce emissions would be US\$30/tonne of CO₂, emissions averted through family planning would cost just US\$4.50/tonne.²⁵

Muslim Population Growth

One-fifth of the world's population – 1.8 billion people – are Muslim. Muslims represent the majority population in 51 countries in Asia and Africa. Indonesia has the world's largest Muslim population.²⁶

Pew Research Center found that Muslims are the world's fastest-growing religious group and are anticipated to exceed Christian numbers by 2070. Muslims are expected to grow twice as fast as the world population due to the high fertility of Muslim women (2.9 children) compared to non-Muslims (2.2 children) and the average Muslim age (24 years) being younger than that of non-Muslims (32 years) – meaning a greater proportion of Muslims at child-bearing age.²⁷ Islam also promotes marriage and stable family environments ideal for raising children.

Family and Marriage in Islam

Islam considers the family as the basic unit of society. The Qur'an views marriage as sacred:

And among His Signs is that He created for you mates from among yourselves, that you may dwell in tranquillity (*sakan*) with them, and He has put love and mercy between your (hearts). (al-Rum 30:21)

This verse implies that, from their origin, husband and wife are to establish harmony between themselves so that both can find tranquillity in each other. Children are not mentioned, suggesting that tranquillity is a prime purpose of family life.²⁸ Children though are considered gifts of God and procreation in marriage is important for humanity's continuity (see Qur'an 16:72). Abdel Rahim Omran, author of *Islam and Family Planning in the Legacy of Islam*, deduced from this verse that while procreation is expected in marriage, sexual relations need not always be for having children, and that procreation should ideally endorse tranquillity.²⁹

Prophet Muhammad (pbuh) promoted marriage for a Muslim and stated that one of its objectives is to shield one from vice.³⁰ Marriage in Islam should be planned with a view to ensuring the man's ability to care for a wife and household, and for the couple to raise pious, healthy and educated citizens.³¹ Otherwise, marriage should be postponed.

Islamic Perspectives on Family Planning

Historically Islamic scholars have debated about the validity of contraception and family planning. Family planning has now, however, been widely adopted by Muslim countries and generally endorsed by their *'ulama*. Traditional Muslim rationales for having many children included, firstly, that many believed it was a religious duty to produce a large *ummah*. They refer to Muhammad's (pbuh) saying: "Marry and multiply for I will be proud of you on the Day of Judgement before the other nations." Secondly, children were considered economic assets, especially in agricultural communities. Thirdly, due to formerly high infant mortality rates, it was believed that with many births some, at least, would survive. And fourthly, children provided 'social security' for parents in old age or crippling sickness. These rationales have now diminished somewhat due to changing circumstances.

Current conditions are different from those of the early Muslims. In classical times the Muslim *ummah* was small. Today it is huge and has the fastest growth rate of any denomination. Not only Muslims, but humanity at large, has benefitted in the past century from improved public health that reduced mortality rates, resulting in large populations. A new approach is therefore needed, which considers family planning. This was the position of Sheik Hasan Ma'mou, former Al-Azhar Grand Imam, who stated in a *fatwa*: "I see no objection from the Shari'ah viewpoint to consideration of family planning."³³

State-based family planning receives impetus from internationally-promoted initiatives. The UN 1994 International Conference on Population and Development (ICPD) called for universal access to family planning services. Delegates from Islamic countries who attended endorsed the conference's Programme of Action (PoA) with reservations that they would interpret and adopt its recommendations in accordance with Islam.³⁴

In 2015, UN Members committed to work towards the Sustainable Development Goals (SDGs) set for 2015-2030. SDGs relevant to family planning are:

Goal 3: Ensure healthy lives and promote well-being for all at all ages; and

Goal 5: Achieve gender equality and empower all women and girls.

These included three targets:

Target 3.1: By 2030, reduce the maternal mortality ratio to <70 per 100,000 live births;

Target 3.7: By 2030, ensure universal access to reproductive health-care services ...; and

Target 5.6: Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the ICPD PoA and the Beijing Platform for Action.³⁵

Target 5.6 is subject to reservations based on Islamic values, as was originally stated at the ICPD. The term 'reproductive rights' would be interpreted in terms of Islamic norms, where spouses are involved in mutual decision-making (*shura*) on family planning and where extra-marital sexual relations are shunned.

Justifications for Family Planning

In the Qur'an God Almighty indicates that He wishes to avoid hardship for His servants:

Allah wishes you ease and not hardship. (al-Baqara 2:185)

Not surprisingly, justifications accepted by jurists for family planning follow the rule of averting hardship to the child, the mother or the husband.³⁶ Reasons include, to:

- 1. Avoid harm to a breast-feeding child from the diminished or stopped milk of a newly pregnant mother (Ibn Hajar); termed *ghayla* (child assault);
- 2. Avoid known health risks to the mother from multiple pregnancies, short intervals, and young age (Abdel Aziz Lesa);
- 3. Avoid pregnancy in an already sick wife (Sayyid Sabiq);
- 4. Avoid transmission of hereditary or infectious disease to the progeny (Shaltout).

Scholars also ruled that Muslims may use contraception to:

- 5. Preserve a wife's beauty and physical fitness, for the continued enjoyment of her husband and a happier marital life, and to keep the husband faithful (al-Ghazzali):
- 6. Avoid the economic hardships of caring for a larger family, which might compel parents to resort to illegal means or exhaust themselves in earning a living (al-Ghazzali);³⁷
- 7. Allow for the education, proper rearing and religious training of children, which is more feasible with a smaller family (Tantawi);
- 8. Ensure separate sleeping arrangements for children, which is more feasible with fewer children (Tantawi, Lesa).

Birth spacing is today highly recommended by jurists, especially to address the Qur'an's recommendation of two years for breastfeeding and Muhammad's (pbuh) concern against *ghayla*, but also to heed medical findings that maternal and infant health is impacted by a mother's multiple pregnancies, short birth intervals, and ages at pregnancy of <18 years and >35-40 years.³⁸

Countries too may wish to avoid economic hardship from high population growth: "Muslim countries have been forced to acquire debt, import food and rely on foreign aid to cope with the needs of the growing population. The result is a vicious circle of poverty, ill health, illiteracy, overpopulation and unemployment being compounded with social frustration, extremism and social unrest." ³⁹

Objections to Family Planning

Critics using Islamic-based arguments have raised the following objections to family planning. Firstly, they believe that the Prophet (pbuh) encouraged a large Muslim multitude. Secondly, they liken contraceptive use to infanticide, and thirdly, they claim that family planning is a Western 'conspiracy' to reduce Muslim populations.

It is argued here, however, that a great Muslim multitude already exists today. Further population growth, will only cause greater harm to the environment and humans themselves, and so should be curbed.

The Prophet (pbuh) warned about the consequences of seeking quantity rather than quality Muslims: "The People will soon summon one another to attack you as people when eating invite others to share their food. Someone asked, 'Will that be because of our small numbers at that time?' He replied, 'No, you will be numerous then: but you will be froth and scum like that carried down by a torrent, and Allah will take the fear of you from the breasts of your enemy.""⁴⁰

The Qur'an also warned against killing one's children out of fear of poverty:

Kill not your children for fear of want: We shall provide sustenance for them as well as for you. Verily the killing of them is a great sin. (al-Isra 17:31)

Based on this verse, some Muslims consider contraception as infanticide. However, the Prophet (pbuh) allowed the practice of *azl* (coitus interruptus), a mode of contraception involving male withdrawal from intercourse before ejaculation. Al-Ghazzali recalled Imam Ali's rejection of the description of *azl* as minor infanticide and added that it was not like abortion as it does not constitute a crime against an existing human being. ⁴¹ Applying the method of analogical deduction (*qiyas*), the majority of scholars allow the use of most contraceptives.

Some evidence exists for the accusation that certain Western agencies are active in seeking to reduce Muslim populations. One account at Mission Islam (www.missionislam.com) cites Abdel Rahim Omran himself as having

participated in preparing long-term 'threat assessments' for the US Department of Defense, which recommended Western planners place population control at the top of the international security agenda:

Omran was working as special consultant to the Department of Defense in 1988, when a series of studies was commissioned to examine dangers to U.S. national security posed by population trends. The studies were published...The summary concludes: '[U.S.] policymakers must anticipate events and conditions before they occur. They must employ all the instruments of statecraft at their disposal (development assistance and population planning every bit as much as new weapon systems)'. 42

Mission Islam identified US-based organisations Pathfinder and Johns Hopkins University as being active in programs in Muslim countries (see *Country Family Planning Case Histories*), which are suspected of having a deliberate agenda to limit Muslim strength through family planning. Sa'diyya Sheikh has counter-argued that "given the profound socioeconomic and political difficulties in various parts of the Muslim world, a lack of family planning and increasing populations would weaken and curtail the strength of Islam." Although there is some substance to conspiracy claims, it is argued nevertheless that current conditions do require Muslim communities with fast growth rates to show a 'duty of care' and curb their growth. The *ummah* should determine its own stand based on its own belief as to the proper course of action, guided by Islamic principles.

The Qur'an and Sunnah on Family Planning

Islamic scholars studying family planning have justified contraception in several ways based on Islamic legal principles. Firstly, they highlight the 'permissibility' principle that, in fields other than acts of worship ('*ibadat*), actions are lawful unless explicitly designated otherwise in the Qur'an or Sunnah. The Qur'an does not prohibit birth spacing or parents seeking to have fewer children. The Qur'an's silence about contraception is not an omission by God as He is All-Knowing and Islam is valid for all times.⁴⁴ Without direct scriptural evidence (*nass*), judgements can be made based on analogy (*qiyas*).

Secondly, they stress that since Islam is a religion of compassion (*rahmah*) and ease (*taysir*),⁴⁵ parents can seek contraception and birth spacing to avoid health risks and excessive hardship, and to ensure parents' capacity to provide basic care and education in raising their children.

His bearing and weaning is thirty months. (al-Ahqaf 46:15)

This Qur'anic verse and the Prophet's strong discouragement against a suckling mother becoming pregnant result in a scholarly consensus that mothers are encouraged to space births over 30-33-month intervals. During the mother's lactation period scholars permit parents to use contraceptives⁴⁶ based on analogy with the acceptance of *azl*.

Al-Azl is a contraceptive form practised during the Prophet's (pbuh) lifetime. The companions decided to seek his approval and he permitted it, as is shown in the following hadith:⁴⁷

Jabir reported that a man came to Allah's Messenger (pbuh) and said: I have a slave-girl who is our servant and she carries water for us and I have intercourse with her (legally), but I do not want her to conceive. He said: Practise *azl*, if you like, but what is decreed for her will come. After some time the person came back and said: The girl has conceived, whereupon he said: I told you what was decreed for her would befall her.⁴⁸

Many classical authorities, as well as all Sunni schools of law, use this hadith to conclude the Islamic permissibility of *azl*, with the wife's consent.⁴⁹ The majority of jurists allowed *azl* either absolutely as *mubah* (permitted; al-Ghazzali) or qualified that it has an edge of *karaha tanzihiyya*, an act disliked in the shariah but without punishment (al-Nawawi).⁵⁰

The following, on the other hand, are majority positions of the Sunni schools:⁵¹

- Hanafi school Azl is permitted with differences as to the requirement
 of the wife's consent. The more popular position is that it is not allowed
 without the wife's consent.
- Maliki school The great majority affirm the permissibility of *azl* to prevent pregnancy subject to the wife's consent.
- Shafi'i school The characteristic position is that *azl* is allowed without the wife's consent. There is some venial disfavour.
- Hanbali school The great majority agree that *azl* is permissible subject to the wife's consent.

The majority of the Sunni schools today rule that non-permanent modern contraceptive methods – such as the pill, condoms, injections and IUDs that aim to achieve the same result as *azl* – are acceptable. ⁵² Najat El Hamri reported that a broad-based discussion on family planning by scholars representing various *figh* schools at a 1988 *Majma al-Figh al-Islami* concluded: "it is permissible

to control the timing of births with the intent of distancing the occurrences of pregnancy or to delay it for a specific amount of time, based on mutual agreement between [parents]."⁵³ Al-Azhar University, in collaboration with the Indonesian government under Suharto, convened the 1990 Aceh Congress on Islam and Population Policy that in the subsequent Aceh Declaration, accepted temporary family planning methods.⁵⁴

Omran, in depicting the adaptability of Islamic law when facing new situations, cited Sheikh al-Sharabassi of Al-Azhar (1974): "Islamic law deals with matters that change with the changing conditions of man or with time and place, it does not lay down a fixed, uniform rule or a rigid, definitive formula but rather leaves this to the opinion of the more discerning scholars of the community within the framework of Islamic jurisprudence.... Similarly, birth planning swings from one extreme to the other, taking various positions...only to conform to the changing circumstances. At certain times planning may take the form of reduction or control of the number of offspring. At other times and in other places, it may be directed towards increasing progeny and giving childbearing free reign."55

Conclusions

Family planning was practiced by certain Companions with the Prophet's (pbuh) consent, so it is not exclusively a Western-derived practice. Shariah guides as to which family planning practices are permissible: "Thus, Islam would be sympathetic to family planning if spacing pregnancies and limiting their number made the mother more physically fit and the father more financially at ease... If excessive fertility leads to proven health risks for mothers and children, or economic hardship and embarrassment for the father, or the inability of parents to raise their children properly, Muslims would be allowed to regulate their fertility in such a way as to reduce these hardships." Muslim countries have therefore developed policies based on these considerations. *UN's World Population Policies 2003* reported that no Muslim government actively limits access to family planning services. For

The great majority of Islamic scholars, however, proscribe or have reservations about sterilisation, which they believe interferes with God's creation (*fitrah*).⁵⁸ The current review of Islam's majority positions suggests the following family planning approach for general cases:

- 1. Short and long-term reversible contraception is permitted.
- 2. Birth spacing of 30-33-month birth intervals is encouraged.
- 3. Contraceptive practices generally require agreement between husband and wife.

- 4. People should not be coerced to stop bearing children.
- 5. Governments should discourage contraception when national fertility rates fall much below the national replacement level⁵⁹ (Total Fertility Rate, children per woman, of 2.1).

In special circumstances Islamic law may allow departures from the above. Muslim governments (Iran, Indonesia) have promoted family planning campaigns for broad societal objectives, especially to overcome socio-economic strains resulting from large youth populations. South African Mufti A. H. Shaikh, however, believes governments should distinguish "between a policy of 'limiting' reproduction and the policy of 'planning' it, that is between societal compulsory laws and individual voluntary measures. Limiting reproduction by way of making compulsory indiscriminate legislations to limit procreation to an absolute minimum or maximum is contrary to Allah's law and human reason. But family planning by way of voluntary, individual measures to space or regulate the family size for genuine Shar'i reasons is permitted."

The strong argument is made here that, since today's environmental crisis in partly due to impacts from high population growth, government policies should promote contraceptive practices. The so-called family planning 'objective' of achieving a certain 'quality of life'61 is dubious, however, since in the West reduction in child-bearing has been accompanied by an explosion in their ecofootprint sizes through wasteful consumption (Table 1). One causative factor identified for fertility declines in North Africa is 'secularisation' with less regard for Islamic norms. Muslims should heed Maulana Maududi's warning that family planning could engender 'a secular sensate culture.

Country Family Planning Case Histories

To better understand the national approaches used in implementing family planning programs, three Muslim countries' experiences are reviewed. Two (Indonesia and Iran) were outstandingly successful, while the other (Nigeria) exemplifies a population growing uninhibitedly.

	Total Fertility Rate (TFR)		Modern Contraceptive Prevalence Rate (CPR) ⁶⁴	Maternal Mortality Rate/ 100,000 live births	Infant Mortality Rate/ 1,000 live births	Education, female secondary, % net ⁶⁵
Country	201566	201767	2017	201568	201769	2015
Australia	1.86	1.77	65	6	4	941
Indonesia	2.39	2.11	60	126	23	78
Iran	1.69	1.97	63	25	16	73
Malaysia	2.00	1.9070	38	40	12	771
Nigeria	5.60	5.07	16	814	70	54 ²
UK	1.88	1.88	80	9	4	99
USA	1.86	1.87	70	14	6	92
World		2.5071				66

Table 2. Rates of Fertility and Contraceptive Prevalence, Maternal and Infant Mortality Rates, and Female Secondary Education, in Selected Countries.

Note: (1) 2016, (2) 2013. TFR is the average number of children born per woman if all women lived to the end of their child-bearing period.

Table 2 shows critical family planning indicators. Maternal and infant mortality rates demonstrate the close relationship between high female secondary education levels and high CPRs, lower TFRs, and lower maternal and infant mortality rates.

Indonesia

Indonesia is considered a role model by the UN Population Fund: "With the backing of Muslim leaders, the country doubled its [CPR] to nearly 60% between 1976 and 2002, and halved its [TFR] from 5.6 to 2.6." Indonesia's programs were launched in 1965 due to concern about social impacts of a burgeoning youth population.

The government worked actively with the country's two largest Muslim organisations, Muhammadiyah and Nahdatul Ulama (NU), with which 75% of Muslims are affiliated. In 1960, NU issued a *fatwa* stating that some forms of birth control aimed at spacing births were permissible; permanent contraception was forbidden.⁷⁴ Muhammadiyah issued guidelines outlining which contraceptives were Islamically permissible: "Birth control was still interpreted as forbidden, but the guidelines highlighted that Islam advises Muslims not to allow their children

to live in poverty. Birth control, the guidelines stressed, is permitted under... emergency circumstances: fear for safety of a mother's soul and health based on a physician's opinion, fear of sustaining a religious life due to an inability to fulfill the child's needs, and fear for the children's health and education due to inadequate birth spacing."⁷⁵

In 2014, the government announced efforts to 'revitalise' family planning with a new expanded universal program until 2019. It included providing contraceptives without charge, and a TFR target of 2.1 by 2025. In consequence, Indonesia's family planning budget quadrupled to \$264 million in 2014. The Currently, Indonesia's modern CPR is 59.4% and TFR a low 2.11, The achieving its target six years early. Johns Hopkins Bloomberg School of Public Health (JHSPH) and Indonesia's National Population and Family Planning Board (BKKBN; Badan Kependudukan dan Keluarga Berencana Nasional) began collaboration in 2014 to provide more women with contraceptive access. This outreach is coupled with mass media and social media campaigns, which aim to reach 2.9 million women of reproductive age. Since Indonesia has already reached the 2.1 replacement birth rate, we ask why is emphasis still placed on programs promoting Islamically questionable "long-term and permanent contraception", which could lead to an unhealthy birth decline?

Iran

Iran has changed direction four times since 1967 when family planning was first promoted. Following the 1979 revolution, Iran terminated family planning initiatives, believing it needed a large population. To stimulate growth, it reduced the legal marriage age; distributed rationed food at subsidised prices based on family size; and gave extra wages to workers for each additional child.⁷⁹ Its population doubled in just 20 years to 55 million, causing serious economic strains on schools and food supplies.

In 1989, President Akbar Rafsanjani's government instigated change by promoting family planning. The resultant national program was considered one of the most successful amongst Muslim countries: TFR declined from 6.9 in 1960 to 1.8 in 2010. The program was introduced when the population was approximately 26 million, with 60% under the age of 24.80 Improved maternal and child health and a low fertility rate made the country a role model.81

The program increased the CPR to 82%, the highest in Muslim countries.⁸² Reduction in women's fertility was partly due to a rise in female literacy.⁸³ The decline was one of the most rapid and has been primarily attributed to the 'Islamified' approach taken. Government *ulama*' delivered *fatawa* that were passed down through the religious hierarchy to their communities, thus removing doubt about the Islamic permissibility of the methods proposed. Most

influential were Imam Khomeini's *fatawa*, including that "contraception was not inconsistent with Islamic tenets, as long as it did not jeopardise the health of the couple, and was used with informed consent of the husband." The government offered free contraceptives to married couples and even provided sterilisation, contravening Khomeini's prohibition. Some *ulama* however, argued that such government intervention could not be justified in Islamic law, except in crisis situations.

The dramatic slowing of population growth with the TFR target of 2.2 being met years early⁸⁸ led to a major reversal in Iran's policy. President Ahmadinejad in 2006 disagreed with the two-child policy and believed Iran could sustainably increase its population to 120 million.⁸⁹ In 2012, Supreme Leader Ayatollah Khamenei acknowledged that continuation of Iran's former policy was a 'mistake', as experts showed that society will face socio-economic problems with an aging population below replacement level.⁹⁰ He stressed that "An increase in the young generation and the largeness of the country's population plays a very significant role in achieving 'power'." Measures taken to reverse the declining birth rate included restricting access to contraceptives, which were no longer subsidised and making vasectomies illegal.⁹²

Iran's experience demonstrated that Islam is not a barrier to change in achieving replacement population levels. Nevertheless, critics argue that Iran's current family planning policies raise ethical concerns. There is concern that some edicts compromised Islamic legal principles. A 2012 European study suggested that the textual ambiguity of Islamic scriptures, together with the lack of a recognised central authority, results in the possibility of simultaneously justifying opposite stands on reproductive health issues. Iran was cited as an example where "Islamic scholars can adjust their teachings to either a pronatalist or an antinatalist stance." 94

Nigeria

Until recently, Nigeria made little progress in family planning, particularly in the predominantly Muslim northern provinces. With a population of 198 million, 95 Nigeria is the most populous African country with amongst the highest annual population growth, at 3.2%. 96 Nigeria's current TFR of 5.0 is reduced from 5.7 in 2008. Modern CPR is just 16% (Table 2). Most women conceive again shortly after giving birth. With current trends, Nigeria's population will grow exponentially and may cause serious socio-economic challenges.

At the 2012 London Family Planning Summit, Nigeria committed to scale-up promotions. Targets will be missed, however, unless cultural norms and religious concerns and misconceptions are addressed.⁹⁷ High fertility in northern states reflects a strong reluctance to embrace contraception.⁹⁸ Having many children

enhances parents' social status and provides farm labour and care for elderly parents. Some women deliberately bear many children to inhibit men's tendency towards plural marriages. ⁹⁹ Locals believe that "given high rates of infant mortality, if you don't have several you may end up with none." ¹⁰⁰ However, high fertility often causes premature death in children and mothers. Although birth rates are higher in the northern region, the extremely high child mortality rate reduces the number of surviving children per family to the same number as in the south. ¹⁰¹

Family planning is hotly debated between informed Muslims and traditional opponents. The former may be winning. Government and non-governmental organisations (NGOs) involve religious and society influencers to ensure larger acceptance of family planning.¹⁰² Lack of trust causes many Muslims to resist using modern contraceptives, believing it is part of Western designs to limit Muslim populations.¹⁰³

Pathfinder International, which initiated the 2000 family planning intervention in northern Nigeria, identified that the common belief "that children are gifts from God and therefore women should not limit or space their pregnancies ... has been strongly supported by Christian and Muslim religious leaders." Pathfinder Doctor, Mohammed Jega, persuaded many religious leaders that Islam supports contraception. His project reaches 40 million Muslims. Consequently, there is now "a 100% increase" in the number of women seeking planning. ¹⁰⁵

In 2017, Nigerian Muslim spiritual leader, Muhammad Abubakar III, Sultan of Sokoto, advised Muslims that Islam is not against contraception or child spacing. He encouraged agencies to persuade men to be kind to their wives, as Islam teaches, and not overstress them with pressure for huge families. ¹⁰⁶ Similarly, the northern Kaduna state government, rather than taking the 'toxic' approach of discouraging people from having children, instead offered free contraception, encouraged 'pausing' between pregnancies, and promoted girls' education that has reduced fertility rates everywhere. ¹⁰⁷

In 2016, the US-based John Hopkins Centre for Communication Programs (JHCCP) commenced their intervention in certain northern states. Since mid-2017, this contraceptive use increase sharply – a massive 75% more people adopted modern family planning each month since the intervention began. ¹⁰⁸ It is a concern though that the two organisations achieving successful family planning interventions in Nigeria, Pathfinder International and JHCCP, have been named by the www.missionislam.com website as entities with US government backing and ideologically-motivated strategies to reduce Muslim populations. ¹⁰⁹ Care must be taken by host countries to ensure that such interventions are closely monitored and that they cease once a healthy country TFR is achieved.

Islamic Legal Considerations on Curbing Population Growth

The previous discussion has shown that Islam encourages birth spacing intervals assisted by contraceptive use. It also allows contraception in cases where there are concerns about the mother's ill-health, potential for hereditary disease, or the parent's straightened economic circumstances.

Islamic leaders originally encouraged Muslim population growth, but today the Muslim population is very large, and is growing fast. Concurrently, human populations are causing serious harm to Earth's environment. Given the changed circumstances, it is time for qualified *mujtahids* to evaluate the situation, notably to decide whether a ruling is necessary to more strongly promote family planning to reduce population growth. Mohammad Hashim Kamali has stated that when a *mujtahid* concludes that previous *fiqhi* rulings "no longer serve the objectives of shariah owing to considerations of social change, he may attempt fresh *ijtihad* ... to construct a ruling which is best suited to the prevailing circumstances and respond to the legitimate needs and interest of the people." 110

It is further suggested that additional support be sought based on the higher objectives of the shariah (*maqasid al-shari'ah*). The *maqasid* approach was developed by Abu Hamid al-Ghazzali (d.1111) and al-Shatibi (d.1388), amongst others, as a means to identify the Lawgiver's primary objectives. Al-Shatibi believed that achieving the public good (*maslahah*) is the only overriding shariah objective—to realise benefit and to prevent harm (*mafsadah*). Benefits are divisible into essentials (*daruriyyat*), complementaries (*hajiyyat*) and embellishments (*tahsiniyyat*).¹¹¹ Al-Ghazzali considered that the essential objectives are five—the preservation of religion, life, intellect, progeny (or lineage) and wealth. Of importance to the present study, Al-Najjar proposed a sixth—protection of the physical environment.¹¹²

The current study identifies serious harm impacting on all the above essential *maqasid*. These harms satisfy three criteria cited by Shahrul Hussain; that the harm is real and certain, excessive, and unlawful or unjustified.¹¹³

For *Life*, the harms include global warming that causes sea level rise and severe habitation threats in low-lying Pacific Islands, the Maldives and Bangladesh; increased climate-related shocks forcing 22.5 million people to leave their homes each year; ¹¹⁴ and water resources depletion and unsustainable impacts on ecosystems on which human well-being depend.

For *Progeny*, humanity is thinking of its own wants, not of future generations, so reducing Earth's sustainability. Family planning with fewer children can better ensure the health of the mother and her children, thus reducing mortality rates and improving the ability of parents to provide proper care and raise 'quality' children.

For *Wealth*, a steady depletion is occurring in the Earth's natural wealth and productive capacity, and in its ability to recover from excessive resource harvesting. The World Wildlife Fund shows that the human ecological footprint is currently much greater than Earth's carrying capacity, representing a dangerous threat to human well-being.

For the *Environment*, population growth causes severe environmental harm, including 1) biological extinctions, 2) land, water and air pollution, and 3) declining marine food sources. These in turn cause harm to humans, particularly amongst the poor and deprived. Concerns about Earth's environment increase in line with forecasted population growth.

Al-qawa'id al-fiqhiyyah (legal maxims) can help identify appropriate maslahah positions by providing a juristic frame of reference enabling one to deduce solutions to newly arising issues. Among the core maxims is "Harm is to be removed." When harm occurs, ways must be devised to remove or prevent it. Consequently, the harms cited above must be removed by curbing population growth.

Another subsidiary maxim is that "Averting evil is preferable to securing benefit". 115 As discussed above, any perceived benefits to having a large number of children cannot be accepted when the severe harm from population growth to the environment and to women's and children's well-being is considered.

Consideration of these maxims supports the view that serious harm caused by the current high level of Muslim population growth requires a stronger legal stand favouring family planning.

Conclusions

The evidence reviewed here establishes a strong link between Earth's large population, which is causing widespread environmental degradation and affecting Earth's sustainability, and the well-being of dependent human societies. As God's *khalifah*, it is a duty of Muslims to prevent this environmental harm and to curb population growth.

From an Islamic legal viewpoint, in the absence of express prohibitions against family planning in the Qur'an, scholars have applied analogical reasoning to permit the use of temporary contraceptive methods. Birth spacing intervals were promoted by the Prophet (pbuh) but this advice has been neglected by some Muslim communities. Islamic conceptions of moderation and considerations of ensuring the good health of mothers and infants, and facilitating good upbringing of children, all argue towards the permissibility of family planning. Iran and Indonesia show that Islamic teachings on family planning can address changing

socio-economic situations, demonstrating that policies can deliver abrupt birth rate changes.

The findings argue in favour of curbing population growth to national replacement levels. Reduction in Muslim population growth should be accompanied by enhancement in the health, education and moral teaching of children to develop a high quality *ummah*. Citizens in rich countries where couples have few or no children are often more consumerist. Therefore, when fertility rates fall, people should avoid seeking excessive affluence. Otherwise population reduction would yield no benefit and could actually exacerbate Earth's degradation. Akhataruddin and others rightly highlighted, "It is not just the population explosion rather it is the social erosion which has to be contained in order to prevent ecological degradation.... The ecological emphasis today is on population control... But what about consumption control and what about global population and [inequitable] income distribution?" 117

The excessive consumption seen in many Western countries is of major concern. As these countries' affluence becomes an aspiration for developing countries, it is critical to curb wasteful consumption worldwide. Islamic approaches addressing this key issue have been provided by Batchelor. The 325 million US inhabitants produce GHGs at more than double the per capita rate of Europe, five times the global average, and >10 times the average of developing nations. The United States is at the forefront in funding family planning programs in Muslim countries but shows little sign of reducing its own consumptive impulses which threaten global well-being.

Policy Recommendations

As outcomes from the current research, the following actions are recommended:

- All Muslims need to promote the Islamic norms of birth spacing intervals and contraception in order to stabilise Muslim populations near a national replacement level and support Earth's sustainability.
- Governments should remove economic barriers by providing family planning services and contraceptives either free of charge or subsidised, especially for low-income families.
- *Mujtahids* should review the evidence provided herein and strengthening rulings promoting family planning in Muslim communities.
- Research is required to determine the level that a nation's fertility rate can fall to without impacting negatively on societal stability.

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