

NAVIGATING MEGATRENDS: The ICPD Programme of Action for a Sustainable Future



The ICPD and Climate Action

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The ICPD Programme of Action and international agreements on climate change share strong commitments to human rights and to broad-based, equitable and sustainable development

In mid-2024, UNFPA issued five think pieces to mark the thirtieth anniversary of the landmark 1994 International Conference on Population and Development (ICPD). Under the framing of *Navigating Megatrends: The ICPD Programme of Action for a Sustainable Future*, the five think pieces are titled:

- ▶ Demographic Change and Sustainability
- ▶ The Future of Sexual and Reproductive Health and Rights
- ▶ The Future of Population Data
- ▶ **ICPD and Climate Action**
- ▶ A Safe Digital Future

The think pieces explore ways to sustain, refresh and accelerate ICPD commitments and the Programme of Action in a world of radical transformation. Designed for policymakers, they reflect on progress and highlight likely future scenarios. They offer starting points for discussion on what's next for population, development, and sexual and reproductive health and rights (SRHR).

This think piece highlights key findings and recommended actions in relation to the ICPD and climate action – an issue just beginning to gain public interest in 1994. The think piece suggests that the ICPD Programme of Action's vision, values and principles are as relevant today as they were 30 years ago. They provide a helpful guide to advance climate action that sustains and enhances both people and the planet.

Programme of Action principles are as relevant today as they were 30 years ago to guide climate action that sustains and enhances people and the planet

"The climate crisis is a case study in moral and economic injustice."

United Nations Secretary-General Antonio Guterres

1 | Introduction

Since the ICPD in 1994, what was then referred to as "climate change" has evolved into today's "climate crisis", and is now recognized as the existential threat of our time.^{1,2} Recent increases in global warming are unprecedented in human history, causing the melting of polar ice caps, a rise in sea levels, the warming and acidification of the oceans, and the increasing frequency, duration and intensity of adverse weather events.³ Scientists agree that we have entered a new geological epoch, the Anthropocene, in which humans are the primary drivers of change in the Earth's atmosphere.

The latest estimates show that if the burning of fossil fuels and their corresponding carbon emissions are not drastically reduced, we will reach a 3.2°C degree increase in warming by the end of the century. Approximately 50 to 75 per cent of the global population could be exposed to periods of life-threatening climatic conditions due to extreme heat and humidity.⁴

The climate crisis is already disrupting social, economic and natural systems. It is pressuring water availability, food production, transport and urban infrastructure as well as biodiversity and human health.⁵ Examples of devastating impacts have already been recorded in various climate hotspots. In West and Central Africa, global warming continues to worsen droughts, desertification, floods, food insecurity, human displacement, social unrest and insecurity. Climate impacts on large semi-arid agrosystems are making livelihoods difficult to sustain, especially for those directly dependent on agriculture.⁶ Increasing drought has led to escalating competition over grazing land, heightening water stress and food insecurity, all of which are risk factors for conflicts; indeed, the region is currently home to 7 of 13 medium-intensity conflict countries.⁷ Other critical climate hotspots include many small island developing States, as rising sea levels and extreme weather events such as cyclones pose existential risks for these island nations.⁸ The consequences of the climate crisis amplify inequalities, such as gender inequality, and contribute to social trauma that heightens vulnerabilities and violence, including against women and girls.⁹

The climate crisis will have an impact on everyone, everywhere, affecting both present and future generations to whom people today have a moral obligation. While no individual, country, system or sector is entirely spared from the consequences of the climate crises, climate impacts are grossly unequal, within and among countries. Low- and middle-income countries that have contributed the least to carbon emissions are the most severely impacted by the climate crisis, and are less able to afford and implement necessary adaptation and resilience strategies to prevent and recover from loss and damage. Among groups of people, poor women and marginalized populations bear the brunt. Around the world, individuals are being deprived of their “human right to a clean, healthy and sustainable environment”¹⁰ of which a safe and stable climate is a key element. The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report stresses that rights-based approaches to climate action are crucial to achieving outcomes that are both effective and sustainable.¹¹

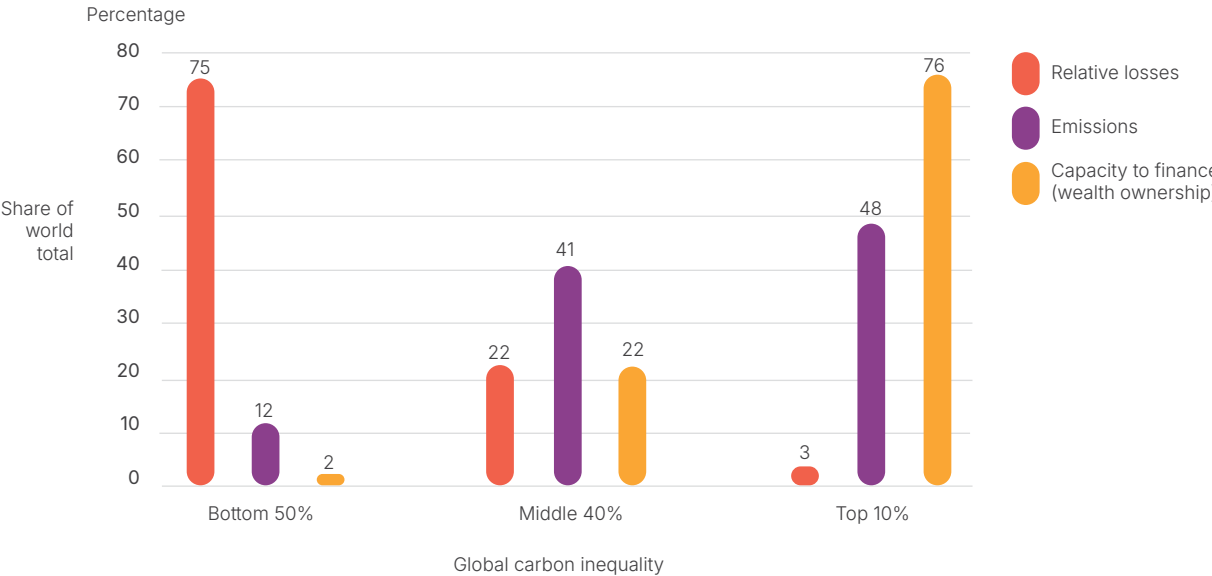


Economic and population growth are often identified as anthropogenic drivers of climate change, including global warming.¹² The claim that current patterns of population growth are a primary driver of climate change, especially in the poorest countries, must be treated with scepticism, however.¹³ Production and consumption patterns drive global carbon emissions and vary enormously among countries and among population groups within countries. The *Climate Inequality Report 2023* points out that: "North America and Europe created half of all accumulated global greenhouse gas (GHG) emissions since 1850. Thus, these two continents have contributed as much to anthropogenic climate change as all other countries put together, despite having but a small fraction of the global population."¹⁴ Between 1990 and 2019, cumulative global emissions increased from 22 to 879 gigatonnes. The wealthiest 1 per cent of people accounted for 16 per cent of total emissions and the wealthiest 10 per cent accounted for more than half, while the poorest 50 per cent accounted for just 7 per cent.¹⁵

The consequences of the climate crisis – heat waves, tropical cyclones, floods and rising sea levels – disproportionately affect low-income countries, displacing millions of people and already leaving some coastal areas and islands uninhabitable. Because of the strong relationship between exposure and vulnerability to climate change and living conditions, those who are worse off economically are inevitably more affected than others.¹⁶ Figure 1 illustrates the disparity in the capacity to cope and finance recovery from potential climate impacts for the poorest, middle-income and richest countries, revealing that the poorest face the largest relative economic losses. It is therefore important to approach solutions for climate action through the lens of climate justice.

▶ FIGURE 1

Differences in the share of climate-related economic losses, emissions and capacity to finance recovery from climate impacts in countries that represent the poorest 50 per cent, middle 40 per cent and richest 10 per cent of countries



Source: Adapted from World Inequality Lab 2023, p. 89.

The present paper reviews the intersection between the climate crisis and other megatrends that are shaping and impacting population and development outcomes. It then reviews relevant core principles and objectives agreed at the ICPD, and illustrates the importance of the core principles of the Programme of Action to sustainable climate action. The paper reaffirms the importance of the Programme of Action for the forthcoming Summit of the Future, set for September 2024, where the global community will gather to advance paradigms and international collaboration to deliver a “greener, safer, better” future for all.¹⁷

2 | The Intersection of the Megatrends and the Climate Crisis

The climate crisis is further exacerbating social inequalities in a context of other transformative megatrends, including an ageing world; an increase in demographic diversity both within and among countries; escalating urbanization and suburban sprawl; growing mobility and migration; and the extraordinary emergence of digital technologies. The way we address the climate crisis will shape how and where we live. It has the potential to benefit societies or increase harm and derail sustainable development for the most marginalized and disadvantaged.

Significant global efforts to address the threat of climate change include the adoption of landmark agreements such as the Paris Agreement on climate change, the Sendai Framework for Disaster Risk Reduction, the 2030 Agenda for Sustainable Development and the New Urban Agenda. The United Nations Framework Convention on Climate Change has convened meetings of the Conference of the Parties to assess progress in addressing climate change, with a consistent theme being its existential global threat.

Demographic diversity and the inequalities of risk

The hallmark of population dynamics today is the diversity of demographic trends across the world. While trends such as population ageing are universal, even ageing differs greatly in pace and scale across regions and countries. For other macro demographic trends, such as population growth, different parts of the world are actually heading in opposite directions. While an estimated 61 countries are projected to undergo population decline by 2050,¹⁸ a small number of countries continue to grow rapidly and will account for the majority of global population growth in the coming 30 years (see the think piece on demographic change and sustainability). Recent modelling in the United States of America argues that climate events such as sea-level rise will accentuate demographic diversity within countries, as young people increasingly leave climate-vulnerable areas and congregate in more secure places, while older people, with less means and capacity to move, remain in place.¹⁹

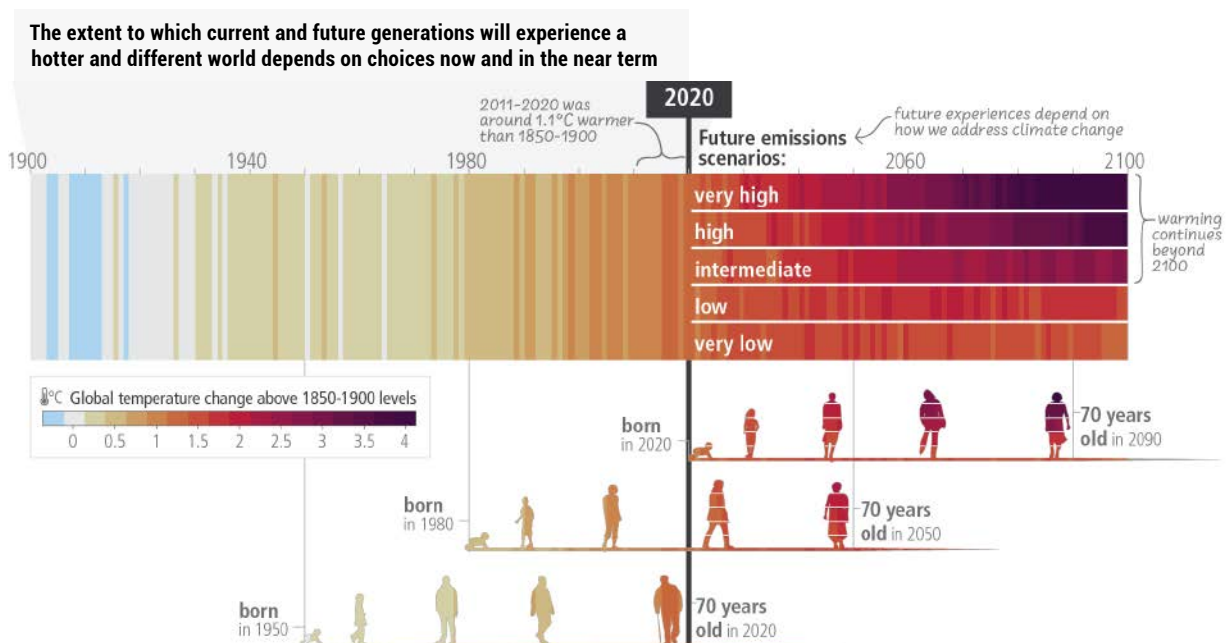
Demographic diversity shapes climate risk and should guide our efforts to protect people in situations of heightened climate vulnerability and crises. A major demographic phenomenon is that the climate crisis will have the most negative economic impacts on regions such as Africa and South Asia as well as small island developing States in the Pacific and the Caribbean that are characterized by youthful and growing populations, relatively poor and fragile economies with huge

debt burdens, and limited scope to rebuild and adapt to the crisis. These countries must urgently scale up their capacities to identify, locate and support vulnerable populations; establish and finance climate mitigation, adaptation and resilience strategies; and create green and sustainable economies – while addressing related challenges, such as biodiversity losses, changing risks to agriculture and food security, and mass movements of people.

Climate change affects younger people differently than older persons, as they must project its deleterious effects into their future. A child born in 2020 has a life expectancy that will bring them close to the end of the present century. They experience a direct correlation between what we do now and their future, knowing that actions such as reducing emissions will impact them directly and for much longer. The IPCC, in comparing the life of a child born between 2010 and 2020 with that of a person aged 55 in 2020 found that in a 1.5°C warming scenario, the child will experience a nearly fourfold increase in extreme weather or a fivefold increase in a 3°C warming scenario. By contrast, a 55-year-old in 2020 will not experience this in their lifetime (Figure 2).²⁰

An article published by *The Lancet* medical journal reports on the result of a survey of 10,000 children and young people (aged 16 to 25 years) in 10 countries (Australia, Brazil, Finland, France, India, Nigeria, Philippines, Portugal, the United Kingdom and the United States of America) where they expressed their thoughts and feelings about climate change and their government’s responses to it. Respondents across all countries were worried about climate change (59 per cent were very or extremely worried; 84 per cent were at least moderately worried). More than 50 per cent reported each of the following emotions: angry, anxious, guilty, helpless, powerless and sad. More than 45 per cent said their feelings about climate change negatively affected their daily life and functioning, and many reported a high number of negative thoughts about climate change (e.g., 75 per cent said that they think the future is

▶ FIGURE 2
Observed and possible projected global temperature trends and how they would affect different generations



Source: IPCC 2023, Figure SPM.1.

frightening and 83 per cent that they think people have failed to take care of the planet). Respondents rated governmental responses to climate change negatively and reported greater feelings of betrayal than of reassurance. Climate anxiety and distress correlated with perceived inadequate government responses and associated feelings of betrayal.²¹

Anxiety about climate change also has an effect on reproductive choice and fertility preferences. In the study published by *The Lancet*, large numbers reported experiencing some functional impact and having pessimistic beliefs about the future, stating: “People have failed to care for the planet; the future is frightening; humanity is doomed; they won’t have access to the same opportunities their parents had; things they value will be destroyed; security is threatened; and they are hesitant to have children.”²² Other studies have found that youth anxiety about the impact of the climate on their future is affecting their fertility preferences, contributing to lower aspirations to have children.^{23,24}

As life expectancy continues to increase in a vast majority of countries, populations are ageing. Yet those in Europe, North America and East Asia are ageing more rapidly than elsewhere, with 29 per cent of Europeans and 38 per cent of Japanese projected to be above age 65 by 2054. For countries that are rapidly ageing, climate action needs to account for the disproportionately greater ill effects of climate change on the health of older people. Older persons have less adaptive capacity, heatwaves impair their ability to thermoregulate, and they are more susceptible to ill-health effects, with even mild dehydration having a direct impact on cognitive performance and other bodily functions.²⁵ Governments should plan accordingly, including for climate-resilient housing and health and care facilities.

Urbanization

Ultimately, the combined trajectories of population growth, economic needs and the climate crisis will accelerate the redistribution of people, which in many parts of the world will lead to increased urbanization. According to the latest United Nations projections, the global urban population will grow by an estimated 2.5 billion by 2050,²⁶ with the most significant gains in Africa and Asia. Over this period, the proportion of people living in urban areas in Africa is estimated to increase from 40 per cent (currently) to 60 per cent.^{27,28}

Urbanization offers both risks and promises for climate change. Populations living in urban and informal settlements are often more vulnerable to extreme weather events²⁹ such as flooding, landslides and heatwaves. Dwellers in informal settlements are especially challenged by the impacts of extreme weather events because their living conditions are characterized by overcrowding, poor waste disposal, inadequate drainage, insufficient ventilation and no cooling systems, all of which can amplify the impact of climate events.

As urbanization increases, new food supply innovations will be crucial to sustain food security for urban residents while reversing climate change. Regional, peri-urban and urban food production will need to increase to reduce transport emissions, with support to urban farmers, farmers markets and local supply chains. The 2015 Milan Urban Food Policy Pact, with 270 signatory cities, provides a global network to “develop sustainable urban food systems” that are resilient³⁰ and provide affordable food for all.

We should also give attention to addressing climate urbanism,³¹ which seeks to create cities that are not only environmentally sustainable but also socially inclusive and economically viable, making them better equipped to face the challenges posed by climate change. In this context, we also need to be particularly attentive to the potentially unintended effects of climate gentrification, which in efforts to address climate change and improve urban resilience may inadvertently lead to the displacement of lower-income and marginalized communities. This is particularly the case when climate action does not consider the social, economic and environmental needs of the most marginalized and climate vulnerable communities. Climate gentrification occurs when actions to secure the urban environment and protect it from climate impacts or reduce carbon emissions affect land prices and end up displacing poorer populations who cannot afford to live in “improved areas”.

The IPCC Sixth Assessment Report makes it abundantly evident that addressing climate change is essential to preventing urban risks and losses, noting that adaptations that are “currently deployed” and “currently planned” are insufficient to address risks associated with climate change for all urban populations, regardless of economic status.³² Implementing measures to adapt and mitigate disaster risks for vulnerable groups are among other essential needs.

A growing range of urban planning designs offers extraordinary opportunities for climate mitigation. Many cities are decreasing carbon emissions, such as through “green” urban planning and incentives. The required infrastructure and typologies for green, inclusive and healthy cities are increasingly well understood,³³ comprising dense, walkable, human-friendly cities that reduce material consumption, per capita emissions and social inequalities³⁴ (see Box 1). Similarly, urban planning can support adaptation by mainstreaming it into city plans. A more people-centred approach to urban planning that understands the aspirations of urban residents and addresses climate risks can serve as a pathway to adaptation.

BOX 1

Designs for green urbanization

By Marcella L. Hager and Karen C. Seto³⁵

The world’s urban population is growing rapidly. By 2050, there will be an additional 2.5 billion urban residents, equal to an increase of around 200,000 people every day. Urbanization on this scale requires a huge amount of natural resources, both in terms of land required to accommodate growth and the materials needed to build, power and sustain these cities. To achieve a sustainable urban future that serves both people and the planet, all future urban growth must be low- or net-zero carbon. Urban design principles can help achieve this by guiding how the shape and built form of a city respond to growth.

Historically, cities were designed around pedestrians and walking, and therefore were compact and highly accessible through a dense street network. The invention of the



automobile, and, subsequently, the design of cities around vehicles, fundamentally changed how cities were planned. Cities began to grow outwards in a low-density form. Economic and social services became dispersed across an unbound urban landscape. Auto-centric cities tend to be low-density and expansive and lead to sedentary lifestyles, social isolation, air pollution, high carbon emissions and the loss of land for uses such as agriculture and forests. This form of urbanization harms people and the planet.


In contrast, cities designed to prioritize human-centric mobility are compact, as goods and services must be accessible via walking, biking, scootering or public transport. The clustering of services means people have less distance to travel to meet their basic needs, saving time, money and travel-associated emissions. In human-centric cities, growth is accommodated by increasing accessibility rather than expanding the urban footprint.

Compact urban forms benefit human health. Shorter distances between residences, work, stores and places of worship allow people to utilize active forms of mobility that improve cardiovascular health. Active mobility also offers a zero-pollution alternative to internal combustion engine vehicles, which improves urban air quality.

The concentration of population and economic activity in a dense urban core facilitates government investment in public infrastructure, given that it can benefit so many people simultaneously. In this sense, compact cities are material and resource efficient. This is in stark contrast to auto-associated infrastructure, such as highways and parking lots, which only benefit those who have the socioeconomic means to own or access an automobile.

Urban forms that are human-centric are also inherently more social and inclusive, as a car is not required to access places of socialization. In fact, active mobility itself offers opportunities for informal social interaction otherwise impossible within the confines of a private automobile.

As we look to the future, it is not a question of whether countries will urbanize but rather what form of urbanization will emerge. Urban design can help reduce carbon footprints, improve health outcomes and reduce the urban heat island effect. We have sufficient knowledge to create general principles for developing liveable and vibrant cities: Save land for nature directly and indirectly; minimize non-local and unobservable consequences; understand that the reach of urbanization is global; and build for individuals and communities. Urbanization can be a catalyst for social and environmental sustainability. Guiding urban growth into a compact form that prioritizes human-centric mobility is the foundation for creating cities that improve the health, safety and resilience of both people and the planet.



Urban design can help reduce carbon footprints, improve health outcomes and reduce the urban heat island effect

This should build on the nationally determined contributions (NDCs), which contain a mixture of sectoral and integrated strategies, and structure budgets and priorities in national policies but also in regional and local ones. The NDCs need stronger alignment with national urban policies, an instrument advanced in the New Urban Agenda. National urban policies remain underdeveloped or poorly implemented. When they do exist, they often make little reference to the heterogeneous forms of urbanization shaping cities and settlements.

In terms of the climate crisis, countries undergoing rapid urbanization have valuable opportunities to shape the future of carbon emissions for their country and the world in how they plan and build urban areas. Climate justice started as a global movement against the colonial, imperial roots of climate change, highlighting the fundamentally unjust distribution of climate impacts on those who have polluted least. The movement has challenged the destruction of sustainable ways of life, for example, those of Indigenous Peoples, whose knowledge is increasingly more relevant to climate change responses. While these arguments still play key roles in international climate change negotiations, including in the recent breakthrough negotiations on loss and damage, the climate justice debate has broadened in recent years to influence climate responses in cities and local governments.

Urban designs will determine the per capita emissions of millions of future urban residents. And how we adapt urban infrastructures and systems, particularly in Africa, will have a major impact on our global climate future. This presents a historic opportunity for mayors and other local government authorities to play an instrumental role in climate action and further underscores Sustainable Development Goal 11³⁶ on the importance of cities for global sustainability.

Food systems and food security

The food system is the single largest driver of climate change, contributing an estimated 21 to 37 per cent of greenhouse gas emissions. One to two thirds of this total is due to animal source foods, with cattle production the main contributor.³⁷ Modernization of the global food system over the past 50 years increased food production, but at a cost in terms of biodiversity, land degradation, loss of freshwater and increased pollution, especially where pesticides and fertilizers are widely used. As the land area footprint of agriculture has increased, natural ecosystems have been lost that contained wild genetic relatives of common food crops. These provided a reservoir for potentially useful genetic strains in the face of climate change.

While modern agriculture is stoking climate change, climate shocks are also threatening food security. Over 120 million people faced acute food insecurity in 2017, and more than three quarters also faced climate shocks.³⁸ Globally, by mid-century, under a worst-case climate scenario, climate change may push up to 158.3 million more women and girls into poverty (16 million more than the number of men and boys). Food insecurity is projected to increase by as much as 236 million more women and girls, compared to 131 million more men and boys.³⁹ Within food production, gender influences the prescribed, often unpaid, roles of women in caregiving and domestic work.

The interconnectedness between the climate crisis and gender inequality cuts across all sectors, including agriculture and food security. Women play critical roles in agriculture, the management



of natural resources and household food production, with agriculture employing 60 per cent of the female working population in South Asia, for example. On every continent, however, women are more food insecure than men, with less access to land, equipment or farm credits. Evidence from Asia and the Pacific shows that the higher frequency and extensiveness of droughts correlate with women's disproportionate exposure to excessive heat and less access to clean cooking fuels, affecting their food security, nutrition and incidence of intimate partner violence.⁴⁰

Local and regional food systems, where urban food supplies and animal feed are drawn from the nearest source, offer partial solutions, with estimates that greater reliance on regional food systems and decreasing reliance on global supplies would halve current food transport emissions.⁴¹ Food loss and waste are major contributors to agricultural emissions but proven practices to reduce waste and post-harvest losses are increasingly recognized and can have impacts at scale.

Climate change is altering agriculture on many fronts, including changing the geography of diseases, the demand for water and the nutrient density of the soil itself, especially where declining yields lead to increased use of pesticides and fertilizers. Promising small-scale initiatives, such as cash-based incentives, assurances of land tenure and mentoring for farmers on restorative agriculture practices, are being adopted in many locations but not yet at scale.

Conflict and violence

While the absolute number of war-related deaths has declined since the Second World War, conflicts involving non-state actors are on the rise and have contributed to recent dramatic increases in the number of persons displaced or exposed to violence. Numbers of both refugees and internally displaced people are now at levels not seen since the period after the war. Between 2008 and 2020, the number of asylum seekers rose by 280,000 persons per year and the number of persons

of concern to the UN Refugee Agency (UNHCR) or in need of international protection rose by an average of 3.6 million people per year. Since 2020, these numbers have only increased. In 2022, UNHCR monitored 32 million people in total, compared to 10.5 million in 2008.

The military-industrial complex is responsible for approximately 5.5 per cent of worldwide greenhouse gas emissions,⁴² causing harm to the environment and contributing to the climate crisis. The lifecycle of weapons,⁴³ including production, testing, storage, use and disposal of small arms, explosives or nuclear weapons, contributes to fossil fuel consumption and high carbon emissions. Military activities and operations, including armed conflicts, have detrimental ecological consequences and impact the resilience of ecosystems.⁴⁴ Land,⁴⁵ air⁴⁶ and water pollution are among the severe environmental consequences of the war between the Russian Federation and Ukraine, which generated approximately 150 million tonnes of carbon dioxide equivalent (tCO₂e) emissions over the first 18 months.⁴⁷ Despite international climate change agreements to reduce emissions, not all military emissions are reported, hindering transparency and accountability. Further, rebuilding infrastructure destroyed during conflict adds to climate and environmental degradation.

Estimating the role of climate change in non-state conflicts, terrorism and consequential displacements of people is extremely difficult. But as temperatures rise, habitat changes are clearly contributing to regional conflicts and insecurity within communities.⁴⁸ Examples are the clashes between herders, fisherpeople and farmers in Cameroon's Far North over dwindling water resources around the Lake Chad basin, or the deadly conflicts over grazing fields between herders and farmers in northern Nigeria.⁴⁹ The IPCC's latest report showed that climate change exacerbates conflict risk with a negative impact on food, water security, access to services, income, livelihoods and those without power or resources, including women and girls, minorities and/or Indigenous persons, who are also disproportionately affected by the resulting violence.⁵⁰

Migration and displacement

As patterns and trends in temperature and precipitation change, populations are shifting (Box 2). Numerous projections estimate the size of populations living in locations that are likely to be uninhabitable by 2100, whether due to heat (approximately 800 million people) or flooding and sea-level rise (around 1 billion). Changes in extreme weather events and slow-onset and slow-moving climate-related changes will increasingly affect highly exposed and vulnerable low-lying coastal populations, threatening small island habitats. As climate change intensifies, it has the potential to drive mass displacement and migration from coastal areas, including for a large proportion of people in small island developing States who will need to migrate or resettle in other places.⁵¹

All estimates predict an increase in human mobility due to climate change, including both within-country movements and displacement, and international migration. Despite the media attention on international migration and asylum seekers moving long distances, the overwhelming majority of displaced persons remain within their own country or are hosted by neighbouring countries in the same region. A World Bank assessment found that by 2050, without concrete climate and development action, climate change could lead more than 216 million people in six regions to migrate within their own countries. People will be more likely to migrate due to water scarcity, lower crop productivity, sea-level rise or other extreme weather events. Positive actions to curb global emissions and address the socioeconomic drivers of migration, however, could curb this internal migration by 80 per cent.⁵²

BOX 2

Forecasting the scope of the “human climate niche”

By T. Lenton and G. Ashish, University of Exeter

A recently published paper⁵⁷ quantified the human cost of global warming and examined the future impact of climate change on population distribution in terms of the “human climate niche”, or the areas of the world where humans can live.

This analysis focused on exposure to unprecedented heat, finding that approximately 60 million people concentrated in Andhra Pradesh in India, the Somali-Kenya border and the Lake Chad basin are already located outside the “human climate niche” as a result of atmospheric temperatures rising to 1.1°C above pre-industrial levels. This exposure affects water scarcity, crop failure and exposure to disease, and creates new pressures on resources such as food, water, sanitation, housing, health care, education and energy. In some cases, increased pressure on resources will drive conflict and forced migration, while creating conditions of escalating and chronic poverty.

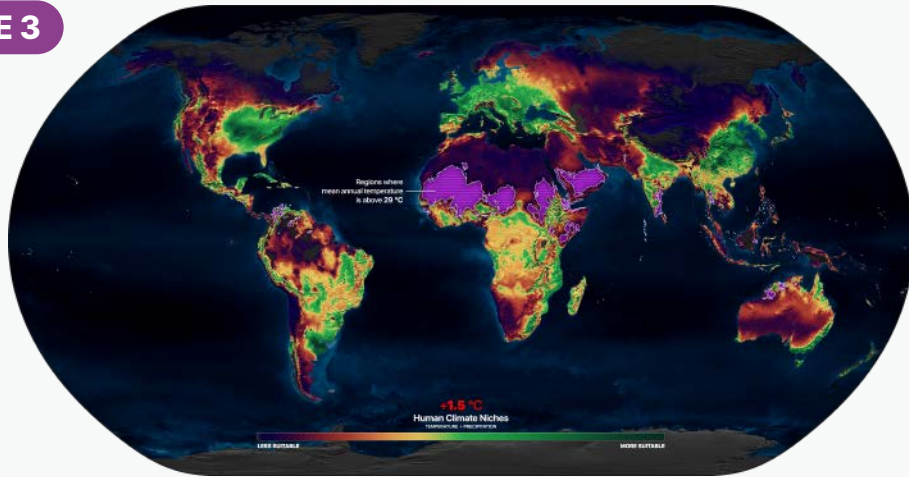
Maintaining only current climate policy commitments through 2100 would result in a worse scenario, with a 2.7°C rise in atmospheric temperatures. Around 2 billion people or one fifth of the human population by then would be exposed to unprecedented heat, of whom 600 million would be in India and 300 million in Nigeria.

This scenario underlines the essential injustice of the climate crisis, given that carbon emissions in both India and Nigeria are less than half the global average, and emissions per capita are even lower. It reinforces the strength of justice-based arguments for redistributing resources from high carbon-emitting centres of wealth in the Global North towards the front lines of climate vulnerability in the Global South to support resilience in those populations facing the most extreme effects of unprecedented heat. It also highlights the need for increased protections of the rights of those who attempt to relocate in the face of untenable environmental conditions caused by the historical and continuingly disproportionate production and consumption patterns of the Global North.

The research also pointed to the regional, national, ethnic, racial and intergenerational inequalities of global warming, showing that 3.5 average global citizens and 1.2 average citizens in the United States currently emit enough carbon in their lifetimes to expose one future person, who is statistically most likely to be black or brown, to unprecedented heat. Figures 3, 4 and 5 from the paper represent the change in the “human climate niche” over time, with the purple masses indicating regions where the mean annual temperature is already above 29°C.

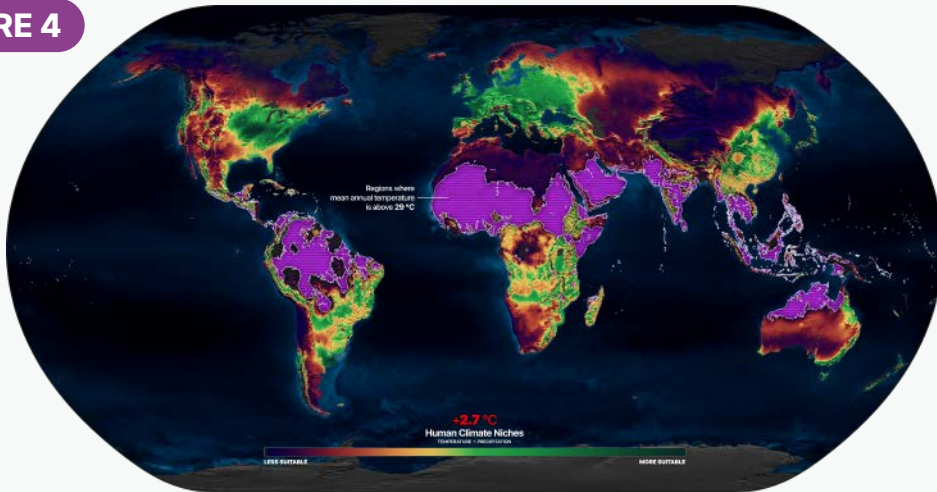


▶ **FIGURE 3**



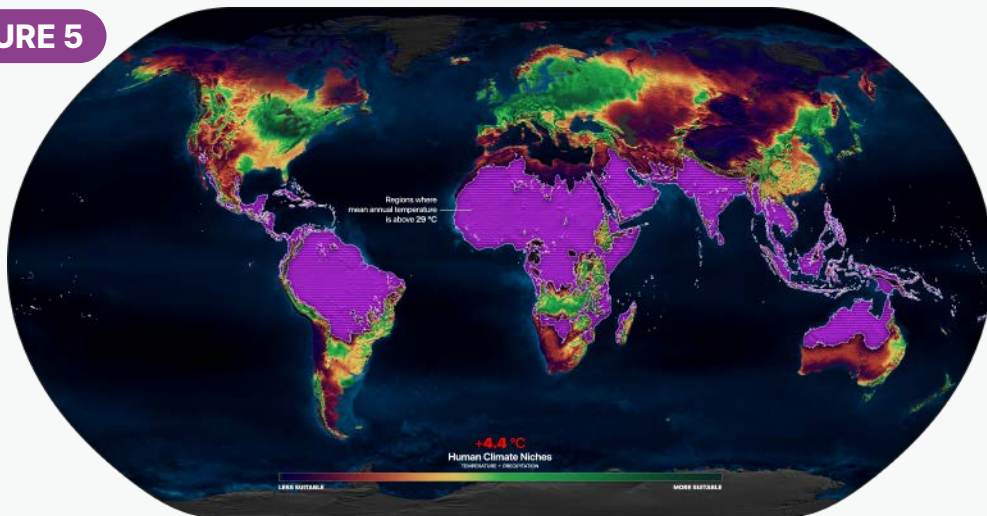
An increase of 1.5°C by 2100

▶ **FIGURE 4**



An increase of 2.7°C by 2100

▶ **FIGURE 5**



An increase of 4.4°C by 2100

>29° C Regions where mean annual temperature is above 29°C

Less suitable  More suitable

Source: Lenton and others 2023.

Climate is now among the root causes of modern migration across the world. Given widespread predictions for an increase in climate-related mobility, new models of cooperation should seek to fulfil the rights of affected communities and respond to climate-driven needs to relocate and thrive in a destabilized world.

Climate displacements can jeopardize the fulfilment of basic human rights, including the rights to education, health services and economic opportunities, as well as the goals of gender equality. A study in 2009 revealed that women comprise 20 million of 26 million people estimated to have been displaced by climate change; forced migration disproportionately heightens the risks of sexual abuse and exploitation.^{53,54} Consistent with the ICPD Programme of Action's focus on human dignity and well-being, it is essential to protect the rights of refugees and migrants and the rights of those affected by climate change who have decided not to move. This also upholds the principles of the Global Compact on Safe, Orderly and Regular Migration,⁵⁵ which seeks to "ensure effective respect for and protection and fulfilment of the human rights of all migrants..." and acknowledges that climate change compels people to leave their country of origin.⁵⁶ Despite ample scientific evidence that the climate crisis is contributing to the destruction of habitats and livelihoods, and therefore is a key factor in forced displacements, there is still not a defined category of "climate refugee". This should be a topic for global debate at the Conference of the Parties in coming years.

Global health, including sexual and reproductive health

Climate change, directly and indirectly, slows progress in meeting the health objectives of the ICPD Programme of Action and the Sustainable Development Goals. The impacts of extreme heat on the human body have been well documented, from dehydration to headaches, heart and kidney dysfunction, stress and impaired cognition, and worsening heat-related illnesses. Health concerns are greater among pregnant women, children, the elderly and people with chronic health conditions, as heat stress can trigger acute events such as heart attacks and exacerbate underlying conditions such as obstructive pulmonary disease.⁵⁸

Climate change has been called "the greatest global health threat of the 21st century".⁵⁹ The World Health Organization (WHO) estimates that it will cause approximately 5 million excess deaths between 2030 and 2050.⁶⁰ Heat, drought and extreme weather will directly affect health outcomes and indirectly affect health through anticipated changes in water, air and food quality. Other health consequences will result from health system limitations in adequately responding to changing patterns of ill-health, and from the difficulties of sustaining services and supplies during emergencies.^{61,62} Evidence also shows that rising temperatures affect the patterns of vector-borne diseases such as malaria, with concomitant adverse maternal and child health outcomes, such as maternal anaemia and low birth weight.⁶³

In the last 5 to 10 years, more evidence has emerged on the direct and indirect effects of climate on maternal health, including anaemia, eclampsia, low birth weight, preterm birth and even miscarriage.⁶⁴ A multi-centre study has shown that if a woman is exposed to an increase in ambient temperature of 1°C in the week before delivery, she has a 6 per cent greater likelihood of stillbirth.⁶⁵ Other studies suggest strong linkages between extreme heat exposure and preterm births.^{66,67,68,69}

The climate crisis is spurring changes in biodiversity and soil health that affect agricultural yields, resulting in food insecurity and undernutrition. Macro- and micronutrient deficiencies and undernutrition among pregnant women compromise their chances for a healthy pregnancy and newborn child, through increased risks of miscarriage, perinatal mortality and low birth weight. Dehydration during pregnancy due to water shortages poses additional risks.⁷⁰

A systematic review of the impact of environmental changes found that increases in air pollution, wildfires, heat stress, floods, toxic chemicals and vector-borne diseases impact male and female fertility as well as newborn health outcomes.⁷¹ An increase in the number and severity of heat waves appears to affect the probability of getting pregnant,⁷² possibly through heat effects on male fertility. Behavioural effects have been noted as well. A study of 18 African countries found that women exposed to abnormal environmental conditions were less likely to desire a first or additional child.⁷³

Accumulating evidence suggests **multiple potential threats and negative impacts of climate change on reproductive health and reproductive choice, depending on the type and intensity of the climate event**. Such threats include lower fertility aspirations, greater difficulty conceiving, higher risk of miscarriage, risks to a healthy pregnancy, and, in acute climate-related emergencies, reduced access to health care. Climate-related emergencies, like many humanitarian crises, interrupt public access to health services and life-saving commodity supply chains, including contraceptives and treatments for the prevention and transmission of HIV, and access to safe abortion services where legal.^{74,75,76} As environmental crises worsen health risks, they in turn lead to a breakdown in the delivery of essential services, worsening health outcomes for all. High debt burdens in lower- and middle-income countries already constrain their capacity to execute development programmes efficiently,⁷⁷ a situation that could worsen if the international financial system influences the diversion of fiscal resources from social services such as health towards the climate response.

Despite growing evidence of climate threats to health, a recent review of NDCs found that few countries are addressing SRHR needs in their national climate policies.^{78,79} Of the 119 countries reviewed, 38 integrated SRHR in national climate plans, 23 referenced maternal and newborn health and 15 mentioned gender-based violence. Only 9 countries included a description of policies or interventions to address the increase in gender-based violence in the context of climate change. There were also significant omissions. Only one country (Dominica) highlighted contraception, despite the widespread evidence of family planning disruptions during climate-related disasters. Only one country (Viet Nam) noted the increasing prevalence of child marriage as a strategy to reduce the economic burdens of families during humanitarian and climate crises. Global evidence is sufficient to argue that all countries would be smart to elaborate effective and targeted policy responses that plan for delivering essential SRH services during a climate emergency or extended period of disruption.

3 | Climate Action Based on the ICPD Programme of Action

In a world becoming more divided and impacted by the climate crisis and other megatrends, how we deal with shared global challenges and emerging trends will define our common future. The climate crisis poses a significant threat to social, economic and natural systems. Its impacts will be felt by

current and future generations globally. The ICPD Programme of Action underscores the importance of integrating environmental considerations into development planning, promoting political participation, eliminating poverty, and addressing unsustainable production and consumption patterns. These principles offer valuable guidance for developing climate action strategies aimed at creating a more sustainable and secure future (Figure 6).

Human rights and inclusion

A core principle of the Programme of Action affirms that all human beings are born free and equal in dignity and rights (Principles 1 and 2). Everyone is entitled to all rights and freedoms outlined in the Universal Declaration of Human Rights, and to a healthy and productive life in harmony with nature. As a matter of priority, climate adaptation, mitigation and resilience policies can better reflect the principles of the programme by integrating gender equality and social justice provisions in all strategies related to population and climate change, and ensuring that all populations (with particular attention to those most affected by the climate crisis and least able to cope) have agency in climate action and the resources to combat its impacts.

Right to development

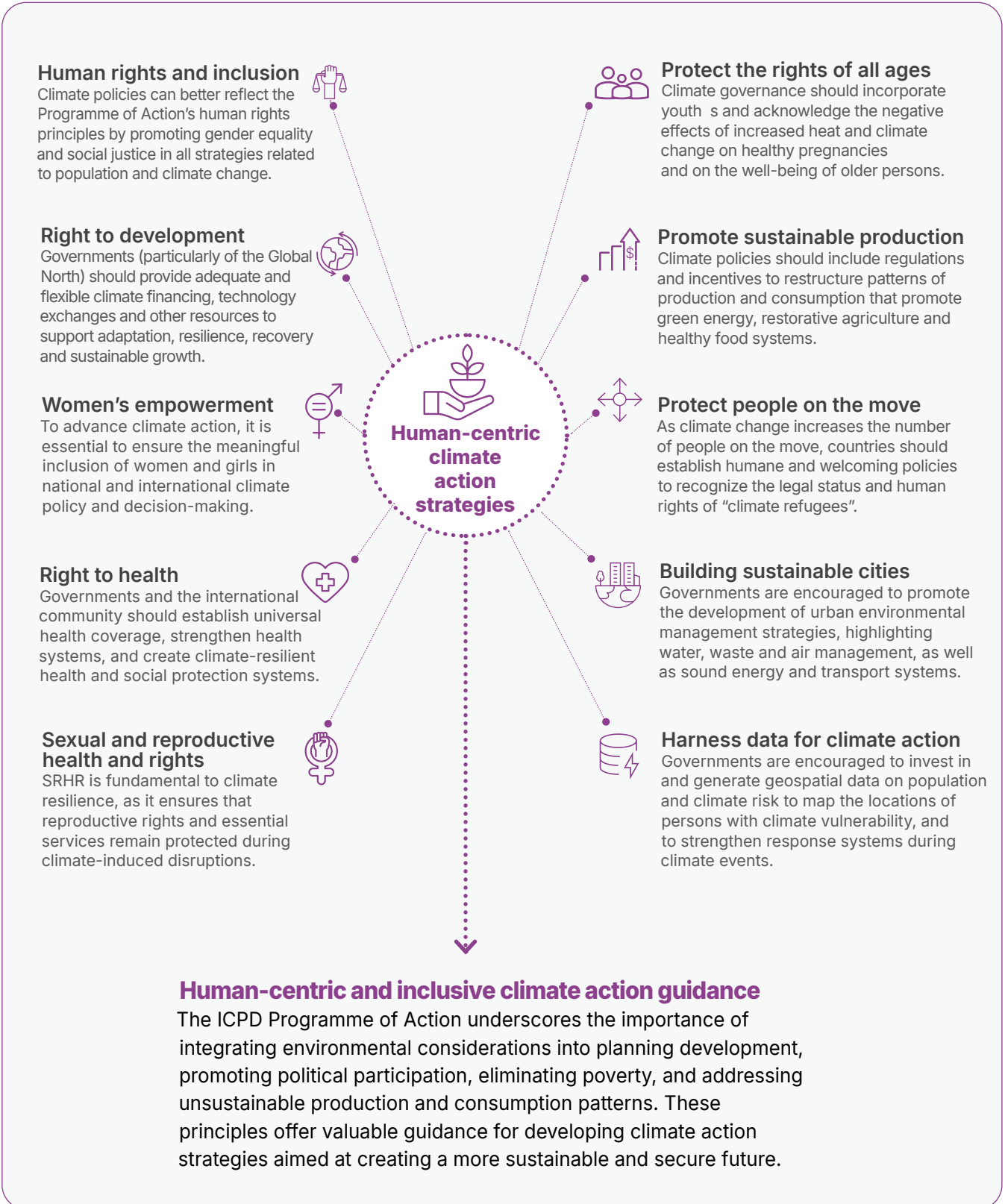
According to the Programme of Action, “the right to development is universal and inalienable”, and must be “fulfilled to equitably address the population, development, and environmental needs of both present and future generations” (Principle 3). It posits that economic growth in the context of sustainable development and social progress necessitates broad-based growth providing equal opportunities to all individuals. Further, “all countries must acknowledge their common yet differentiated responsibilities” (Principle 15).

The essential injustice of the climate crisis reinforces arguments for redistributing resources from high carbon-emitting centres of wealth in the Global North towards the front lines of climate vulnerability in the Global South. This would support the resilience of populations confronting the most extreme effects of the climate crisis. As a matter of priority, governments (particularly



▶ **FIGURE 6**

ICPD Programme of Action climate action strategies for a sustainable and secure future





those in the Global North) should provide adequate and flexible climate financing, technology exchanges and other resources to support adaptation, resilience and recovery from loss and damage, especially to small island developing States, the Global South and other vulnerable and affected regions.

Women's empowerment and inclusion

The Programme of Action underscores the importance of women participating equally in civil, cultural, economic, political and social life at the national level, and of eradicating all forms of discrimination on the grounds of sex (Principle 4). Achieving this principle requires policies and programmes aimed at improving women's access to economic resources and removing any impediments to their participation in public life.

A wealth of research confirms interlinkages between the climate crises and gender inequality. Across the globe, women and girls in the poorest regions and front-line communities face disruptions in livelihoods and essential services, and heightened climate vulnerability and violence. Advancing climate action requires the meaningful inclusion of women and girls in national and international climate policy and decision-making, including to ensure the integration of substantive and sectoral issues central to gender-responsive adaptation in climate policy, financing, NDCs and national adaptation plans.

Right to health

The Programme of Action affirms that all individuals have the right to enjoy the highest standard of physical and mental health as well as universal access to health-care services (Principle 8), and that they should have the ability to control their own fertility (Principle 4).

Governments, the international community and all key actors need to accelerate progress in establishing universal health coverage, strengthening health systems and creating climate-resilient health and social protection systems. All these elements are part of managing growing climate impacts on global health and guaranteeing that quality health care remains available, particularly

for the most vulnerable, before, during and after crises, in line with the World Health Organization Operational Framework for building climate-resilient and low-carbon health systems.⁸⁰

Sexual and reproductive health and rights

The Programme of Action reflected a remarkable consensus among diverse countries that increasing social, economic and political equality (including a comprehensive definition of sexual and reproductive health and reproductive rights that reinforced women’s and girls’ human rights) was and remains the basis for individual well-being and sustainable economic growth and development.

In a world of 8 billion people, amid evolving megatrends, harmful narratives are emerging around high population growth in the poorest countries as a major contributor to the climate crisis, accompanied by views that more aggressive population control efforts would limit the growth of emissions. All the evidence reveals this is inaccurate and counter to the principles of the ICPD. Population control approaches undermine the human rights and bodily autonomy of climate-vulnerable people, particularly women and girls in poorer regions. Climate action must safeguard rights and choices for all, particularly populations in the most vulnerable situations. Climate policies should recognize that SRHR is fundamental to resilience as it ensures that reproductive rights and essential services remain protected during climate-induced disruptions.

Protect the rights of all: children and young people, older persons and future generations

The Programme of Action emphasized the importance of investing in education and appropriate SRHR for young people, and underscored the importance of protecting the rights of future generations (Principle 2). It called for prioritizing children and ensuring their rights to standards of living and health (Principle 11).



The systemic and behavioural change that the climate crisis demands can be more holistically and organically achieved with more investment in climate education (especially at the primary and secondary school levels) and through curriculum reforms that integrate climate change. There is a growing need to promote research to better understand what the climate crisis means for young people, exploring implications related to confidence in the future, economic prospects, fertility and family aspirations, and long-term health, including mental health. New insights are also needed on gender inequality and how it affects resilience and abilities to cope, and on how young men and women may experience the climate crisis in different ways. For countries that are rapidly ageing, it is important to recognize the added health vulnerabilities of older persons to extreme heat, and the potential that older persons will have greater challenges in relocating as habitats are threatened.

Promote sustainable production and consumption patterns

The Programme of Action emphasized curtailing climate change by assuring the eradication of poverty and by changing prevailing patterns of production and consumption (Chapter 3).

As a matter of urgency, there is a need to enact policies, including regulations and incentives, to restructure unsustainable patterns of production and consumption, and realize commitments to phasing out fossil fuels, promoting green energy, advancing restorative agriculture and sustainable food systems, and balancing the future health of people and the planet.

Protection of people on the move

Principle 12 of the Programme of Action states that countries should provide proper treatment and adequate social welfare services for migrants while protecting their fundamental human rights. A focus on human dignity and well-being should underpin the global policy work required.

Since climate change will likely increase the number of people on the move globally, countries should establish more humane and welcoming regional and international policies to recognize the legal status and human rights of "climate refugees". Those experiencing a loss of home and habitat need support and services, including for SRH, to realize full integration within host countries.

Building sustainable cities

The Programme of Action responded to growing urbanization by urging governments to promote the development and implementation of effective environmental management strategies for urban agglomerations, giving special attention to water, waste and air management, as well as to environmentally sound energy and transport systems (Chapter 9).

Since 1994, research has made clear that climate adaptation and mitigation in cities can result in large reductions in per capita emissions. With the global urban population expected to grow by an estimated 2.5 billion people by 2050, the time is now to invest in green urban planning. Dense, walkable, public-friendly spaces increase safety and community accessibility, and reduce material consumption, pollution and emissions.

Harness the power of data to inform climate action

The Programme of Action emphasizes that valid, reliable, timely, culturally relevant and internationally comparable data form the basis for policy and programme development, implementation, monitoring and evaluation (Chapter 12).

Many new data opportunities are available to enrich information and knowledge on climate. Governments are encouraged to scale up investments in climate knowledge and adaptation. They could generate geospatial data on population and climate risk to map locations of persons with the greatest climate vulnerability. This could improve preparedness and shorten response times during climate events. It could also help to prioritize climate-resilient housing, transport and related public infrastructure, including to protect older persons from climate risks. All countries are encouraged to have targeted, evidence-based plans for disaster risk reduction, early warning and early action, including measures to adapt and deliver essential SRH services.

4 | Recommended Actions

All actors should recognize SRHR as fundamental to climate adaptation and resilience. Growing evidence of the disproportionate impact of climate change on women and girls underlines the need to make SRHR and women's empowerment integral to climate responses, including through the protection of essential reproductive health services during climate-induced disruptions and the representation of women in climate decision-making. Other priorities entail addressing the risks of gender-based violence and child marriage in households and communities that are losing livelihoods due to the climate crisis.

Governments, the international community and all key actors should accelerate progress in strengthening health systems, adopting universal health coverage, and creating climate-resilient health and social protection systems. All these elements are part of managing growing climate impacts on global health, and acknowledging the uniquely negative effects of increased heat and other climate changes on healthy pregnancies and the well-being of older persons.

Countries are encouraged to embed the perspectives of young people in climate governance and include young people in decision-making. Governments and development institutions could promote research to better understand what the climate crisis means for young people. They could back studies that explore the implications of the climate crisis on people's confidence in the future, economic prospects, fertility and family aspirations and long-term health, including mental health. New insights are needed on gender inequality and how it affects resilience and abilities to cope, and on how young men and young women may experience the climate crisis in different ways.

At the twenty-seventh Conference of the Parties to the United Nations Framework Convention on Climate Change, governments agreed to create a new fund that would help particularly vulnerable developing countries to address the loss and damage arising from climate change. This would support the resilience of populations confronting the most extreme effects of the climate crisis.



Investments in climate knowledge and adaptation will be most effective if they are based on spatial data or maps that help to identify areas and populations vulnerable to climate risks. These maps help determine where population are located and the resources needed to have the most impact. Such data can improve preparedness and shorten response times during climate events. They can enable governments to prioritize climate-resilient housing, transport and related public infrastructure, including to protect young people, disabled people and older persons from climate risks.

Given the growing global urban population, investment in green urban planning is an essential component of climate action. Dense, walkable, public-friendly spaces increase safety and community accessibility, and reduce material consumption, pollution and emissions.

The increasing deterioration of habitable spaces and mounting numbers of displaced and relocated persons due to climate and environmental degradation underline the need for policies to guide safe, orderly and regular migration. The Loss and Damage Fund would provide finance to support vulnerable developing countries to implement measures and policies related to displacement, including by enhancing evidence and addressing data gaps.

Those who migrate following a loss of home and habitat need support and services, including for SRHR, education and decent work in order to contribute to host countries. The decision text of the first Global Stocktake at the twenty-eighth Conference of the Parties explicitly noted “the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change, including through circular economy approaches, and encourage efforts in this regard”. These efforts include reducing fossil fuels, advancing green energy, promoting agriculture and food systems that restore ecological diversity and feed people without causing environmental harm, and balancing the health of people and the planet, now and in the future.

5 | Conclusion

- ▶ In highlighting key findings and recommended actions on climate action, this paper has shown that the principles of the ICPD Programme of Action are as relevant today as they were 30 years ago in guiding climate action that sustains and advances people and the planet.
- ▶ The world needs a shared global response to the inequalities and injustices laid bare by the climate crisis and to the vulnerabilities of countries and populations that contributed least to the current crisis but are suffering the most.
- ▶ In light of the disproportionate impact of the climate crisis on women and girls, governments are encouraged to promote SRHR and women's empowerment as integral to climate resilience. This includes protecting essential health services during climate-induced disruptions, ensuring that women are represented in climate decision-making, and mitigating the risks of gender-based violence in households and communities losing livelihoods due to the crisis.
- ▶ Governments are also encouraged to recognize the deterioration of habitable spaces and the increasing numbers of displaced and relocated persons due to climate events; to adopt Global Compact policies for safe, orderly and regular migration; and to assure the well-being of climate refugees.



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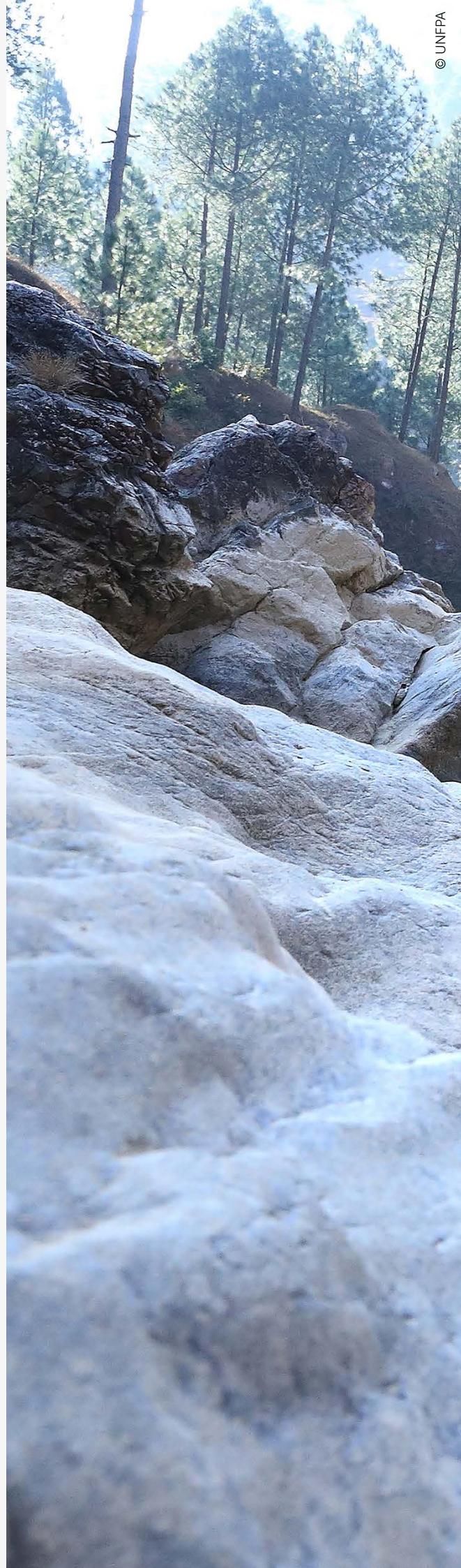
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