

World demographic prospects: between certainties and uncertainties

Gilles Pison • Chercheur associé à l'Institut national d'études démographiques (Ined), rédacteur en chef de la revue *Population et Sociétés*

To open this “Focus”, Gilles Pison offers us an overall vision based on past developments to help us to better understand those to come. While the world's population should continue to rise to reach 8 billion by 2023, its growth rate is decreasing. It should continue to regress until the world's population virtually stabilises at some 11 billion people within a century. One major demographic change expected is Africa's exploding population, which could quadruple to reach more than 4 billion in 2100.

Humankind is growing ever faster, sparking fears of overcrowding. Demographic projections predict that growth will continue over the next few decades, but at a slower rate every year. A rise of 2 to 4 billion people in this century is likely, but growth beyond that is not expected. What is this prognosis based on? Once the world total reaches 11 billion, will growth eventually stop everywhere? Here, let us examine some of the future certainties and uncertainties.

World demographic trends: lessons from the past

To predict the future, it is helpful to review past history. The world's population now totals in the billions, having grown rapidly in the last two centuries. In its entire past, the world's population, growing very slowly, totalled only from a few hundred thousand to a few million people. Only after reaching the one billion mark at the end of the 18th century, did it begin to grow more rapidly. It crossed the billion mark near 1800, then reached two billion in 1927, three billion in 1960, four billion in 1974, five billion in 1987, six billion in 1999, and seven billion in 2011 (Figures 1 and 2). At the end of the 2010 decade, the world's population had grown every year by 82 million people (1.1%), made up of the 141 million births (386,000 per day, or 4.5 per second), from which 59 million deaths (161,000 per day, or 1.9 per second) must be subtracted.

Growing at a rate of 1.1% per year, the world's population doubles in approximately 60 years. If this rate were maintained, the 7 billion mark of 2011 would become 14 billion in 2071, 28 billion in 2131, etc. In their average projections, the United Nations forecasts that the world's population will “only” be 11 billion in 2100 (an average of the high and low scenarios of 16 and 7 billion, respectively – see Figure 2) and that it will eventually stabilise. These figures are based on the UN's assumption that all countries will have gone through their demographic transition (see further) according to the model that predicts that the world's population will stabilise after a phase of rapid growth (Figure 3). Let us examine this model, which looks at population growth in the countries of the North.

Figure 1 :
Évolution de la population mondiale depuis deux mille ans

Figure 1:
World population growth in the last two thousand years

Gilles Pison (d'après les données des Nations unies)
Gilles Pison (from UN data)

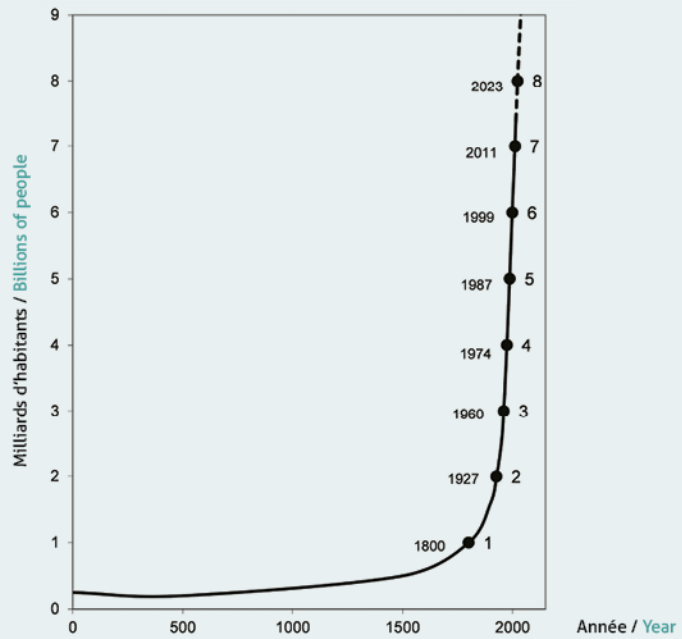
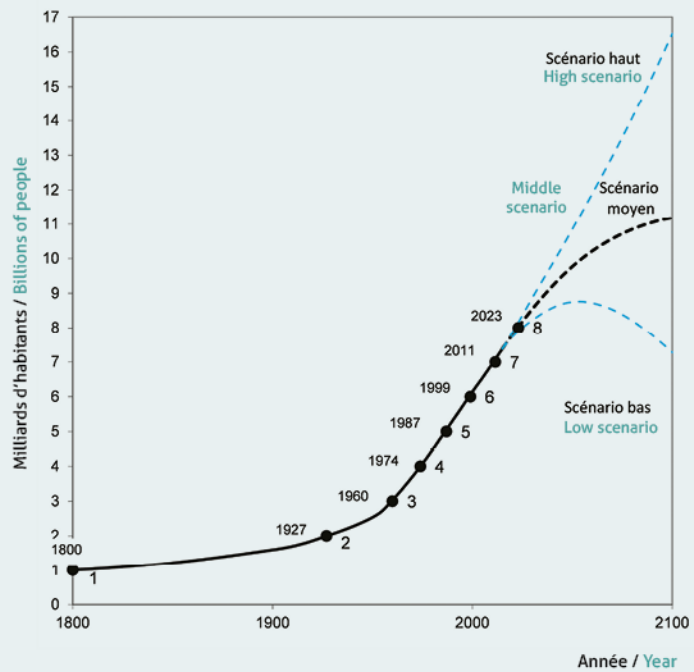


Figure 2 :
Évolution de la population mondiale depuis 1800 et projections jusqu'en 2100

Figure 2:
World population growth since 1800 and projected to 2100

Gilles Pison (d'après les données des Nations unies)
Gilles Pison (from UN data)



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From one balance to another: the demographic transition

The world's population did not grow – or did so at a very slow pace – until two centuries ago, with births and deaths nearly offsetting each other. Soaring mortality rates, especially in infants, were due to wars, epidemics and famines, and shortened an individual's average lifespan to between 20 and 25 years of age. To compensate for this, average fertility rates had to be high, to up to about six babies per woman. In the West, this balance was disrupted two centuries ago. As a result of economic growth, initial advances in hygiene and medicine, and the rise of modern advanced States, epidemics and famines gradually disappeared from Europe and North America. Mortality rates, especially in infants, dropped. Families nonetheless remained large, the total number of births began exceeding that of deaths, and populations grew (Figure 3). After one or several generations, parents began seeing that most children who were born survived. With this, children became a burden, since schooling lasted for a longer number of years. With the spread of the Enlightenment, which advocated individualism and the criticism of religious restrictions, a new behavioural concept spread across Europe and North America, i.e. voluntary birth control. Women had fewer children. Even as mortality continued to fall, the total number of births still exceeded the number of deaths and populations grew. It was only in later generations that this growth gradually subsided at a time when the number of deaths stabilised and came close to the number of births. This demographic transition¹ has now run its full course. Today's theoretical fertility balance, so far unobserved in any country, but attainable in developed countries, would be close to two children born to each woman whose average lifespan is at least 70 years of age. Births would then be roughly equal to deaths.

This historical transition that developed countries today have undergone is being experienced, in turn, by other countries and it explains why their populations are increasing and adding to the world's overall demographic growth.

¹ “Demographic transition” refers to a “shift in a population from a traditional demographic regime marked by high fertility and mortality to a modern demographic regime in which fertility and mortality are low” (INED: <https://www.ined.fr/en/glossary/demographic-transition/>).[dispo page 50]

Figure 3 :
Le modèle de la transition démographique

Figure 3:
The demographic transition model

Gilles Pison

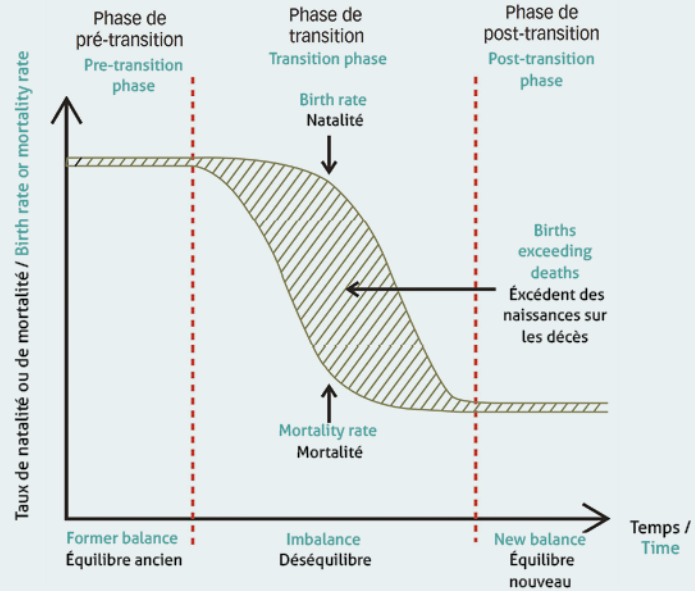
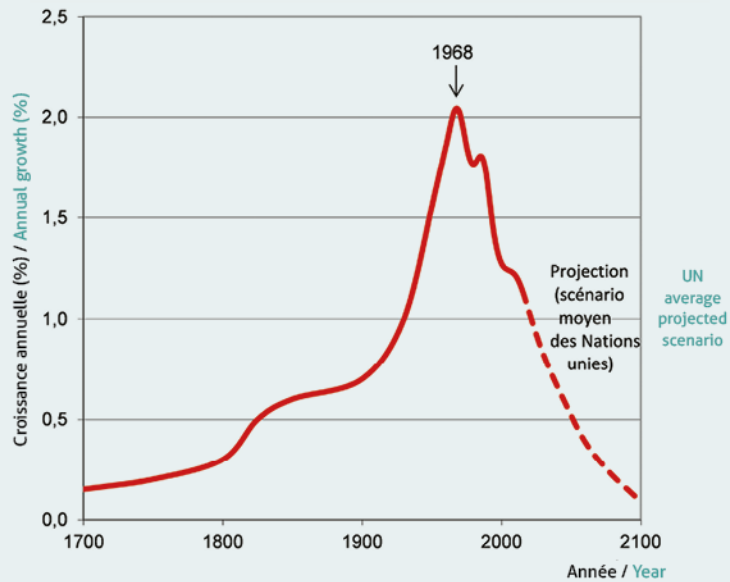


Figure 4 :
Taux de croissance de la population mondiale de 1700 à 2100

Figure 4:
World population growth rate from 1700 to 2100

Gilles Pison (d'après les données des Nations unies)
Gilles Pison (from UN data)



Population growth will continue, yet decelerate

The world's population will continue to grow, but at a progressively slower pace (Figure 4). Population growth peaked at over 2% per year fifty years ago, and it has been halved since then (1.1% in 2019), and it is expected to keep falling until the world's population nearly stabilises in the coming century at around 11 billion people, according to the average scenario of the United Nations (Figure 2).

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The accelerated population growth rate of the last two centuries can be explained by the fact that different regions of the world have been successively going through the demographic transition. The peak rate fifty years ago corresponded to a period when fertility rates were still high in the countries of the South, women giving birth to an average of five to seven children each. These countries experienced a decline in their mortality rates over a few years or decades as a result of advances in hygiene and medicine, as well as socio-economic progress, even though fertility rates remained much higher than in the North. The outcome was sustained population growth fed by births exceeding deaths. Demographers at that time were already aware of this phenomenon, but the general public only realised it a few years later when this growth was explained to be a “population explosion”. To be more exact, it was an indication that the countries of the South were, in turn, entering the demographic transition phase at a faster pace than the countries of the North had done a few decades or a century ago. Growth rates of around 3% per year (doubling in 23 years) in the South were not uncommon, whereas in Europe from 1880 to 1914, rates that stood durably at around 1.5% per year were exceptional.

Demographers had forecasted that the decline in mortality rates in the countries of the South would eventually be followed by a decline in fertility rates, as had been the case in wealthier countries. Voluntary birth control had been slow to spread in the West, adopted in some countries at the end of the 18th century, well before modern contraceptive practices appeared, but affecting the whole population only in the second half of the twentieth century. Demographers believed that this chain of events would occur likewise in the countries of the South, even where birth control programmes were already set up. Their ideas were upheld by ethnologists who described these countries as having social traditions reflecting a very strong ties to large families and a total unreceptiveness to birth control practices.

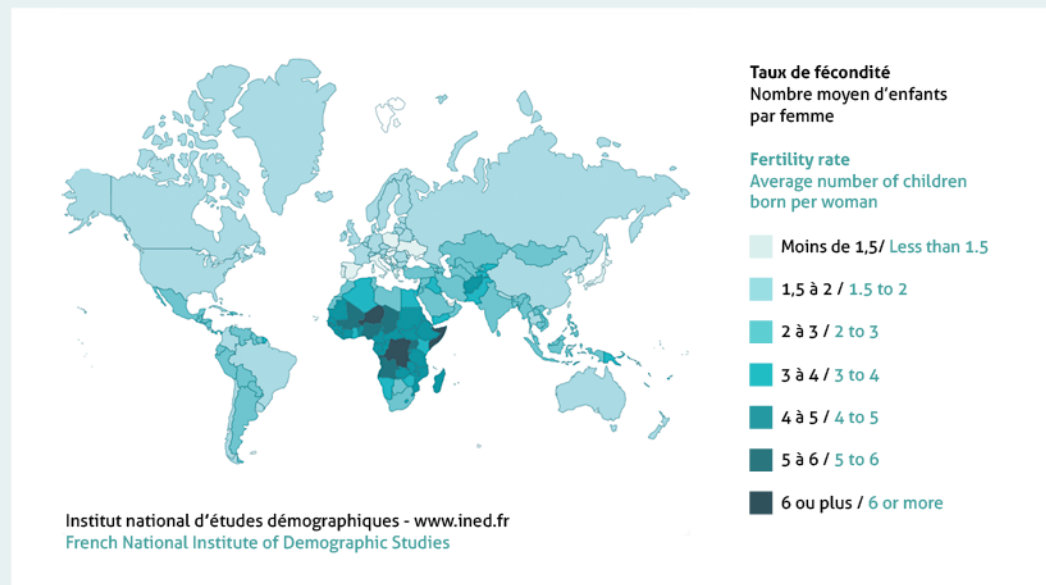
A revelation: the rapid decline in fertility in Asia and Latin America

Demographers were astonished when their findings revealed that fertility rates had begun to drop very rapidly in many Asian and Latin American countries between 1960 and 1970. They had to revise population projections significantly downward for these continents.

One of the end results is that in 2017 the worldwide fertility rate stood at only 2.5 children, that is, half of the 1950 figure (five children). But this current average of 2.5 children covers a wide range of settings (Figures 5 and 6). The lowest fertility rate is in Taiwan (1.2 children), and the highest in Niger (7 children). In most countries and regions of the world, including many of the countries of the South that comprise more than half of humankind, fertility rates stand below the replacement threshold of 2.1 children. This is the case in Vietnam (1.9 children), Brazil (1.7), China, Thailand, and Iran (1.6). Even in India, where the average is 2.3 children, several States totalling several hundred million people (including Andhra Pradesh, West Bengal, Karnataka, Kerala, Maharashtra, Punjab and Tamil Nadu) have seen their rates drop below this replacement level.

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Figure 5 : Carte de la fécondité dans le monde en 2017
Figure 5: Map of 2017 fertility rates in the world



Many countries of the South have low fertility rates, yet their populations, which include many childbearing adults born when fertility rates were still high, are young and, as a consequence, there is a large number of births. The elderly and the very elderly, on the other hand, are few in number, and even if their life expectancy is not as high as that in developed countries, the total annual number of deaths is low. As people age, the population of these countries will therefore keep growing for a few more decades. China is a good example of this demographic inertia. In 2015, as noted above, it is estimated that the average fertility rate was 1.6 children, well below the generational replacement level, with a life expectancy at birth of 76 years. Seventeen million children were born in China that year and 10 million people died, the population thus increasing by 7 million inhabitants, or 0.5% of the total population (1.4 billion). According to the average projections of the United Nations, China's population will continue to grow, up to a ceiling of 1.46 billion in around 2030, and then will decrease to 1.40 billion in 2050. Interestingly, a more heavily populated India will eventually overtake China. India is an example of a country where the fertility rate of 2.3 children in 2015, as mentioned above, still stands significantly higher the generational replacement level. Since 1975, more Indian children than Chinese children have been born each year. In 2015, they were 25 million compared to 17 million (Table 1). India's population, at 1.3 billion in 2015, is expected to surpass China's by 2025. India's fertility rate being above the generational replacement level, combined with a very youthful population, ensures that India and other countries with this same profile will experience significant population growth for another half-century.

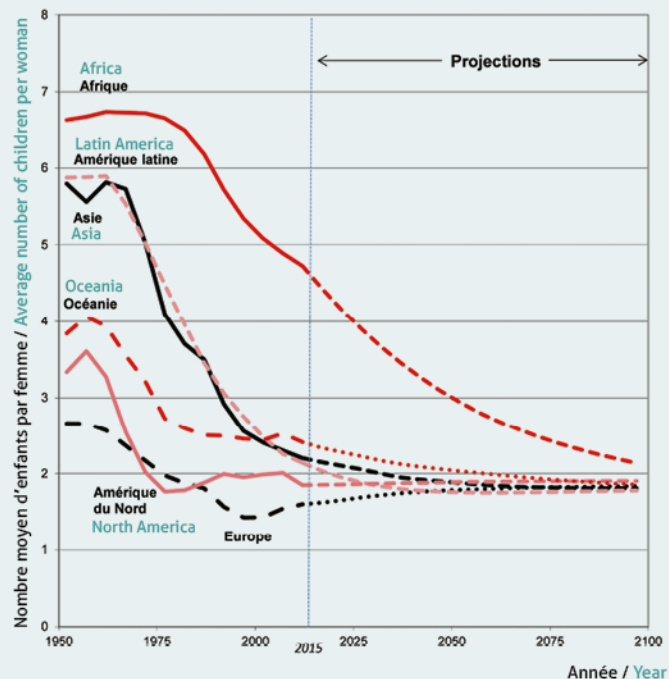
In the mid-2010s, nearly all of Africa, plus the regions lying in a strip extending from Afghanistan to North India and Pakistan, still had high fertility rates reaching up to three children per woman. These regions are amongst the least developed in the world and their population growth will attain its greatest peak during this century, even though voluntary birth control should become widespread in the future, as it will everywhere else.

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Figure 6 :
Évolution de la fécondité
par région du monde de 1950
à 2015 et projections
jusqu'en 2100 (scénario
moyen des Nations unies)

**Figure 6: Changes in fertility
in different regions of the
world from 1950 to 2015
and onward to 2100 (average
UN projected scenario)**

Gilles Pison (d'après les données
des Nations unies)
Gilles Pison (from UN data)



Countries foreseeably re-ranked

The ranking of the world's most populous countries will shift before 2050, just as they will shift for the two mega-countries that are China and India. Brazil, the fifth most populous country in the world, with 204 million people in 2015, is expected to be overtaken by Pakistan, the sixth largest (199 million), and Nigeria, the seventh largest (181 million) (Table 1). This ranking is based on the present numbers of births in these different countries. By 2050, Nigeria itself should overtake Pakistan and Indonesia, and even the United States, currently the third most populous country (321 million in 2015), will be surpassed by Nigeria with 401 million people in 2050. In the mid-2010s, seven million Nigerians were born each year, many more than Americans (fewer than 4 million).

Europe, the pioneer in the demographic transition, saw its population skyrocket in the 19th century to the point that its share in the world's population in 1900 grew to account for one person out of every four. This peak had probably never been attained previously. As countries on other continents began experiencing their own demographic transition, their populations grew, and Europe, phasing out of its own transition at the same time, had its share reduced to one out of every eight people in 2000. This share should continue to decrease to perhaps one out of sixteen in 2100. Asia, meanwhile, having long accounted for around two-thirds of humanity, has seen its share decline slightly in the past two centuries due to population growth in Europe and then in the Americas. But Asia's population has grown too, and looking to the future, Asia should continue to harbour most of humanity (between 50 and 60% of the world's total).

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Table 1: Number of births, an indicator of tomorrow's population

The ten most populous countries in 2015			Ten countries with the highest number of births in 2015			The ten most populous countries in 2050 (average UN projection)		
Population in 2015 (in millions of people)			Births in 2015 (in millions)			Population in 2050 (in millions of people)		
1	China	1 407	1	India	24,4	1	India	1639
2	India	1310	2	China	17,5	2	China	1402
3	USA	321	3	Nigeria	7,1	3	Nigeria	401
4	Indonesia	258	4	Pakistan	5,8	4	USA	379
5	Brazil	204	5	Indonesia	4,9	5	Pakistan	338
6	Pakistan	199	6	USA	3,9	6	Indonesia	331
7	Nigeria	181	7	Ethiopia	3,4	7	Brazil	229
8	Bangladesh	156	8	Congo	3,3	8	Ethiopia	205
9	Russia	145	9	Bangladesh	3,0	9	Congo	194
10	Japan	128	10	Brazil	3,0	10	Bangladesh	193

Source: UN 2019, Projections of the world's population (<https://population.un.org/wpp>)

Asia's population growth on the wane

Asia's population, now well underway in its demographic transition, has its future seemingly mapped out, with a rapid deceleration of its growth combined with an aging population and rapid urbanisation. The ranking of Asian countries by population is in fact likely to shift depending on each country's degree of progress in its demographic transition process. Population rankings and population counts will predictably change in 2050, as mentioned above. Indonesia, Pakistan, and Bangladesh may each total between 190 and 340 million people in 2050. The Philippines and Vietnam will have 151 and 115 million, respectively, compared to 102 and 94 million in 2015. Neighbouring Thailand, with a demographically significant population practically equal to that of France (69 million in 2015), contrastingly will have a slightly smaller population in 2050 (65 million). Its expected demographic decline, as compared to its neighbours, is due to a very quick drop in its fertility rate, which initially occurred in the second half of the 1960s, similar to what happened in China. Since 1990, it has so far been below the generational replacement level (1.5 children per woman in 2015). Afghanistan is the type of Asian country that, by contrast, has a high potential for population growth because of its high fertility rate (5 children per woman). With its record mortality rate, life expectancy was only 63 years in 2015, one of the lowest in the world, close to that found only in sub-Saharan Africa. Afghanistan's population could almost double by 2050, going from 34 million (in 2015) to 62 million people.

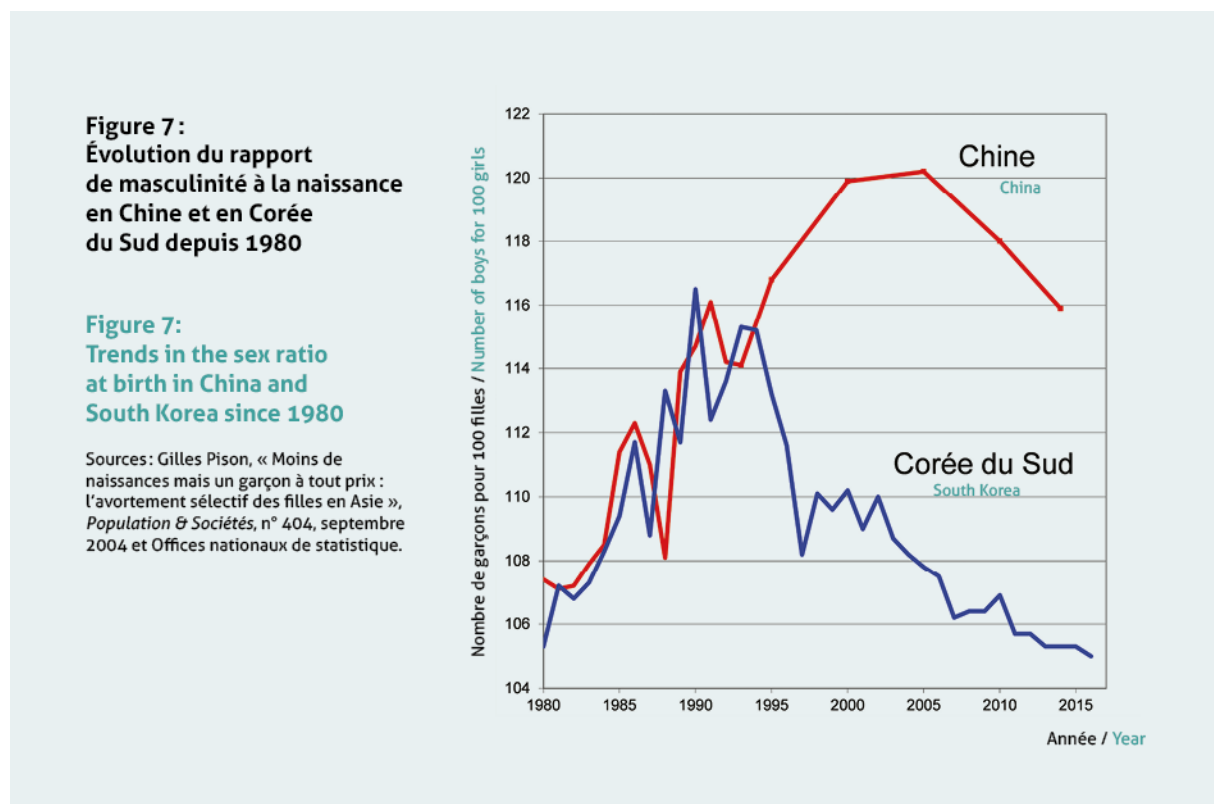
The very rapid drop in fertility in China in the 1970s has often been attributed to the one-child policy. Similar rapid declines have, however, been observed in countries like Thailand, which have not applied such coercive policies. Birth control policies certainly do play an important role, but they are only effective if they match the desires of couples. China's fertility rate dropped rapidly in the 1970s because its official policy coincided with a change in couples wanting fewer children. India's initial birth control policies in the 1950s, 1960s and 1970s

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partially failed, however, because couples were not yet ready to plan for smaller families. More recently, the rapid decline in fertility in Iran, going from 6.5 children per woman in 1980 to 2.2 in 2000, that is, a three-fold drop over 20 years, was unexpected in a Muslim regime ruled by authoritarian mullahs. But this drop had nothing to do with birth control. As for the contribution of religion, assuming that it has formulated a doctrine in the matter – which is not the case of Islam – it cannot go counter to the preference of couples wanting a small family.

Boys outnumber girls in Asia

One of the uncertainties of future demographic trends in Asia comes from an imbalanced sex ratio at birth in a large number of countries. Normally, boys slightly outnumber girls – 105 to 100 on the average. Yet, since the 1980s, the proportion of new-born boys in has risen in several countries, such as in South Korea and China (Figure 7). In China, the ratio reached 120 boys per 100 girls in 2005. Countries where this rising trend has been observed are seen to share two characteristics. The first is a strongly patrilineal society where women have little power, meaning that families are very keen to have at least one male offspring. The second is a fertility rate that has fallen to an average of two or fewer children per woman, as has occurred in China (1.6 in 2015), South Korea (1.3) and Vietnam (1.9). In times when fertility was high, families seldom did not have a boy. When families have one or two children, the probability of not having a boy is greater. Now that couples want fewer children, but at least one being a boy, they no longer count on luck to have the sex they want for their child.



Choosing the sex of one's child has always been a cherished dream, but no technique has yet been devised to predict a child's sex at conception, or to significantly improve the chances that either a boy or a girl will be born. In countries where the proportion of boys has risen, a method is used to determine the sex of the embryo during pregnancy and to have an abortion

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if it is unwanted. It is not 100% effective, since it can avoid the birth of a girl but does not ensure the birth of a boy. Several pregnancies and abortions may thus precede the birth of the boy, some couples having failed to conceive a boy after several attempts. This method further assumes that the sex of the foetus can be determined during pregnancy. Ultrasound imaging, now widespread since the 1980s, is a technique can be used to somewhat accurately identify the sex of a child after the third or fourth month of pregnancy.

The blame for the preponderance of boys in China has also sometimes been attributed to its mandatory one-child policy. It is true that families were loath to having a single daughter, but as mentioned earlier, this official policy line did correspond to their wanting fewer children. What is more is that China's gender imbalance appeared during the same period as in South Korea and Taiwan, where no one-child policy had been set. Gender imbalance had already surfaced in Hong Kong in the years before its return to China. A preponderance of male births since the 1980s is due in reality to the combination of three factors: reduced family size, the desire to have a boy at all costs, and the development of ultrasound imaging.

The sex ratio at birth has also risen in India, but without having yet reached the ratios in China. The 2011 Indian census found that 109 boys were born for 100 girls amongst children under seven years of age, compared to 108 in 2001, 106 in 1991, and 104 in 1981. Nowadays, gender imbalance primarily affects the States of north-western India that include Punjab and Haryana, in which the 2001 census found nearly 125 boys for 100 girls amongst children under seven years of age. Other Asian countries are also concerned, such as Vietnam (112 boys for 100 girls in 2013), and the three Caucasian countries (Georgia, Armenia, and Azerbaijan) where the sex ratio at birth was nearly 118 boys for 100 girls in 2001. Even Europe has been affected, when it was found that 110 boys were born for every 100 girls in some Balkan countries (Albania, Montenegro, Kosovo and Macedonia) in the early 2010s. In Asia, this trend could spread to countries like Bangladesh and Pakistan, once fertility rates have sufficiently fallen. But not all countries are concerned. In Thailand, where fertility is low (1.6 in 2010) and in Indonesia (2.1), this phenomenon is unknown, just as elsewhere in the world (Latin America, Africa, North America and most of Europe), where, again, sex ratios have so far remained normal. Even if gender imbalance is circumscribed to a few countries, however, it has global implications, because the demographic weight of China and India comprises 38% of the world's population and one-third of all births.

Will the gender imbalance worsen? The States of the Indian Union have not yet all been affected, especially those with high fertility rates. Gender imbalance may yet further prevail and extend across the country. But it could also regress as it has in South Korea (Figure 7). Having taken full account of the gender imbalance issue, Korean authorities, like those in other countries, have banned techniques used to determine the sex of the foetus during pregnancy, as well as selective abortions. They issue heavy penalties to sanction fraudulent physicians, some of whom have, in fact, been severely sanctioned. This ban was announced with campaigns mounted to change people's mind-set and raise the status of women. Its enforcement beginning in the early 1990s appears to have borne fruit, as the sex ratio, after a peak topping at 116 boys for 100 girls in 1990, dwindled to return to a near-normal level of 105 in 2016 (Figure 7). The sex ratio in China has also been declining since 2005, even though it has yet to reach its normal level, as it has in South Korea.

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Will gender imbalance at birth persist in the countries where it is holding out and where it may prevail in the future, or is it just a temporary glitch that will return to normal within ten to twenty years' time, as it has in South Korea? Even if it is temporary, boys are overrepresented in the generations of children already born. Boys are likely to bear the impact of gender imbalance throughout their lives, especially after they reach a marriageable age. Young women, scarcer than young men, will have no trouble finding a husband, while some young men will end up having to remain single. The matrimonial market could adjust by encouraging men to marry at a later age than women. The age gap between spouses would thus widen, since men at a later age would marry women from younger generations. The current trend in Asia, as almost everywhere in the world, is to have marriage and the birth of the first child both postponed to a later age. Young people want to study and get a job before founding a family. The constraints caused by gender imbalance may hinder women from evolving.

Demographic perspectives should be revised. When the younger generation affected by gender imbalance reaches a child-bearing age that older generations have already reached, few women will bear enough children for generational replacement. When the sex ratio is 105 boys for 100 girls, 2.1 children are needed on the average for generational replacement. A sex ratio of 120 requires 2.25 children. The population growth of countries will shrink at a faster pace than expected and populations will age more quickly.

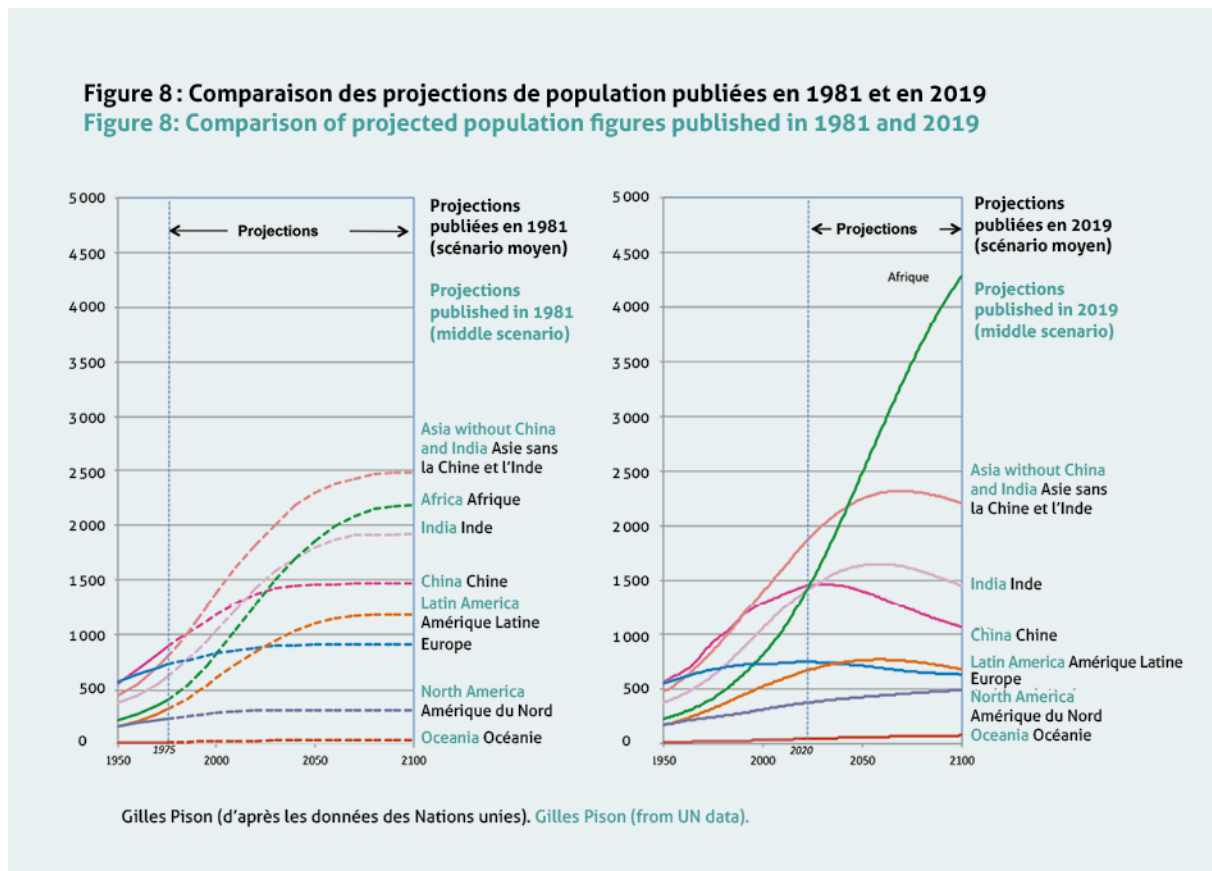
Demographic growth in Africa despite AIDS

One major demographic change expected is the tremendous growth of Africa's population, which, including North Africa, could more than quadruple in a century, from one billion in 2010 to 4.3 billion in 2100, according to the United Nations' middle scenario, as already mentioned above. Today, one human being out of six lives in Africa; this will be the case for one out of four in 2050 and perhaps one out of three in 2100. This increase should be particularly significant in sub-Saharan Africa where the population could grow from one billion in 2017 to four billion by 2100, according to the same scenario.

How is this trend possible in a part of the world ravaged by the AIDS epidemic? Mortality has actually climbed temporarily in sub-Saharan Africa and life expectancy is decreasing. But the fertility rate is nonetheless high, ensuring that births will exceed the large number of deaths despite a rise in mortality. Demographers have taken into account the greater rate of mortality in Africa in their projections, as well as the gradual return to better health as the fight against the AIDS epidemic progresses. Africa's heavy price paid in the epidemic will have barely affected its demographic vitality, and even with the slower growth envisioned, a several-fold increase of its population within a century is unavoidable, as mentioned above.

Population projections published by the United Nations in 1981 forecasted 10.5 billion people by 2100 according to its middle scenario. The latest projections released in June 2019 forecasted 10.9, or an additional 0.4 billion. The revised total is slightly higher, but the real difference lies in the distribution by continent. Asia, with 5.9 billion people expected in 2100 according to the projections published in 1981, will not have more than 4.7 at that time according to the reports published in 2019 (20% fewer). This downward adjustment is even more significant for Latin America, with 680 million projected in 2100 instead of 1.187 billion (43% fewer). Conversely, the figures for Africa, with 2.2 billion people in 2100 according to the

1981 projections, have nearly doubled at 4.3 billion in the reports published in 2019 (Figure 8).



A first astonishing fact mentioned earlier is that the fertility rate in many Asian and Latin American countries began to fall sharply thirty to forty years ago, leading to a downward revision of their population projections.

Another surprising observation was made more recently and concerns the countries in tropical Africa. Fertility rates were anticipated to decline later than in Asia and Latin America, because of the sluggish socio-economic development of tropical Africa. This difference was thought to be due to a simple time lag, whereby fertility rates, once they began declining, would do so at the same pace as in other countries of the South. This is what occurred in North Africa and Southern Africa, but not in tropical Africa where fertility rates, now having declined, are doing so at a slower pace. Population projections have therefore been revised upward, predicting that, in 2100, one out of every three earthlings will be living in Africa.

Why are fertility rates not declining at a faster pace in tropical Africa?

Fertility rates are indeed declining in tropical Africa, however, more so amongst the educated classes and in urban areas than in the countryside where most people live. Several factors may explain why fertility is now dropping at a slower pace than what was observed elsewhere in Asia and Latin America a few decades ago in (Figure 6).

Africa is developing economically, but step by step, without having yet reached a level equivalent to that in Asian or Latin American countries at the time when their fertility rates began to fall

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sharply. But economic development and declining fertility usually go hand-in-hand, the latter often being considered to be a consequence of the first. Women's education is a key factor in this process. Women who have attended school have fewer children than those who have not. Asian and Latin American countries invested heavily in education a few decades ago. While we see that that education is advancing in tropical Africa, especially amongst women, it is still outpaced by Asia and Latin America where fertility rates have been declining.

Another factor explaining a slower-paced decline in fertility rates in Africa is the sharing of expenses for raising children. In Africa, some children are raised by adults other than their own parents – a grandparent, an uncle, an aunt – who bear the expenses for food, clothing, and schooling, such that the cost of raising children does not fall exclusively on the parents' shoulders, but are shared within the extended family. Everywhere in the world, people are deciding to have fewer children, so that they can provide for each one of them and assure that their lives will be long and healthy, which is impossible when they have many children. But if having an additional child does entail higher costs, and if the cost of bringing up the child is shared, then there is less incentive to have fewer children.

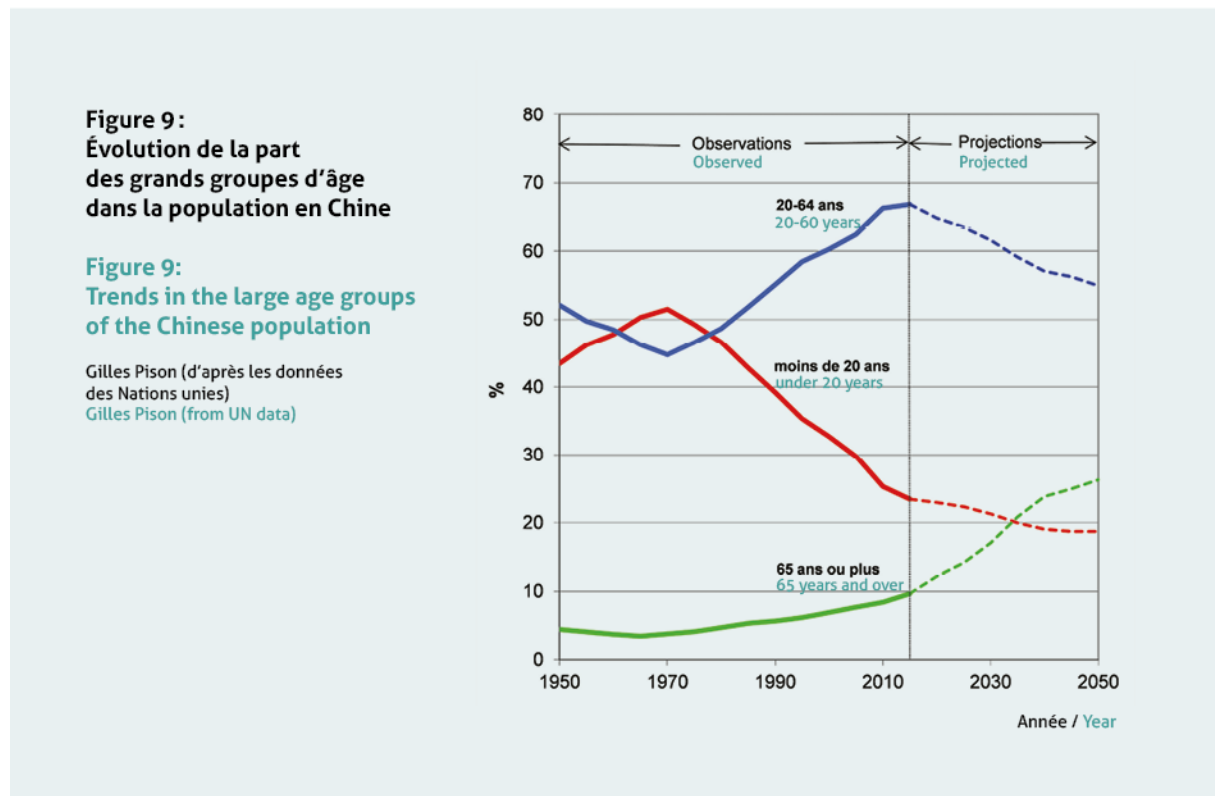
Fertility rates have declined more slowly in Africa than in Asia and Latin America over the last few decades, but in Africa this has not been due to a refusal of contraceptive practices. Most rural families have not yet adopted the two-child model, but they do want fewer children, and especially children spaced further apart. Couples are willing to resort to contraception to achieve this, but social services to support them are lacking. National birth control programs do exist, but they are inefficient, lack resources, and, above all, are run by managers and staff who are unmotivated to have contraception implemented in actual practice. Amongst the few exceptions are Rwanda, Ethiopia, and Malawi, where the authorities are very committed to promoting small families and encouraging lower fertility rates as a priority. Rwanda has experienced one of the steepest declines in Africa, having fallen by more than 20% in one decade (from 5.4 children born per woman in the early 2000s to 4.2 in the early 2010s). But in most other countries of tropical Africa, leaders and elite classes, even at the highest government levels, remain unconvinced that birth control is of any great interest, despite the official rhetoric of international organisations. Once again, this is one of the differences with the situation in Asia and Latin America observed in the 1960s and 1970s.

The “demographic dividend”: a convincing lure, but is not misleading?

In order to convince African governments to make birth control one of their priorities, the notion of a “demographic dividend” has been dangled by some. When fertility rates in a country drop sharply, the share of young people in the population will strongly diminish without initially increasing to any measurable degree the proportionate share of older people in the population (Figure 9 illustrates the case of China). As a consequence, the share of the working-age population augments significantly, providing an opportunity for the country to develop economically. This favourable situation lasts only for a given time span. Several decades later, the many working-age people will have aged and will have considerably increased the share of elderly people in the general population. If this window of opportunity can be seized, a kind of supplemental economic growth known as a “demographic dividend” may ensue. It is estimated that a number of Asian countries, including China, have derived a benefit from this “dividend”, which has accounted for as much as 10 to 30 percent of their economic growth. In contrast, Latin American countries have not received this advantage, mostly because too few jobs have been created to employ all of the additional working-age people entering the

work force.

Asia and Latin America have committed to small family sizes, but not because they hoped to reap the benefit of a demographic dividend. It was not an issue at the time. Governments set birth control policies to reduce population growth that they determined to be accelerating too fast for proper development. In the case of Africa, the conditions for a demographic dividend to occur are unfavourable. Fertility rates are declining at too slow a rate. And even assuming that they could fall rapidly, job growth prospects may be too weak to take on board an additional workforce. In the unlikely event that there is a demographic dividend, it is nonetheless a distant prospect for the coming decades.



The growing urbanisation of humanity

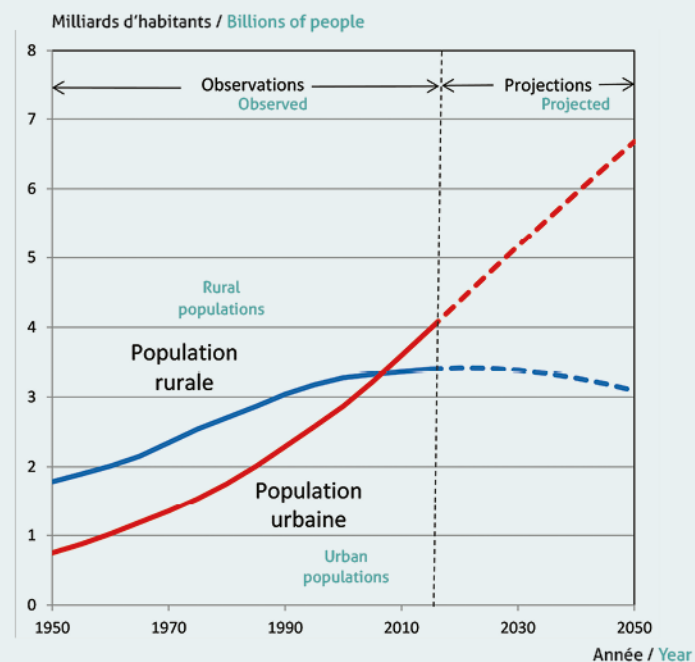
Humanity crossed a historic threshold in 2007. At present, most people are city dwellers, whereas previously, they were in the minority. In 1900, only one in ten people lived in cities, and in 1950, three in ten. They were five out of ten in 2007, and they should be six out of ten in 2030. Increased urbanisation will spread across the world. Future demographic growth everywhere will take place in cities, now becoming ever more sprawling and more concentrated. The number of rural dwellers should no longer increase, and could, in fact, decrease (Figure 10).

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Figure 10:
Évolution des populations
rurale et urbaine dans
le monde

Figure 10:
Trends of rural and urban
populations in the world

Gilles Pison (d'après les données
des Nations unies).
Gilles Pison (from UN data).



Urbanisation is more or less developed depending on the continent. Europe and North America, the most advanced, are also the most urbanised (in 2018, 74% to 82% of the population lived in cities), but Latin America, although less developed, is also highly urbanised (81%). Asia had as many urban dwellers as rural dwellers in 2018, and rural dwellers are still in the majority in Africa (57%). But urban dwellers there should soon outnumber rural people, as elsewhere in the world. Asia and Africa, tomorrow's most populous continents, will be home to most of the world's great cities².

The world's population is advancing on a short-term path. Demographic projections are indeed relatively accurate when it comes to the size of populations in the next ten, twenty or thirty years. Most people who will be alive then have, in fact, already been born, and we know their numbers, and we can more or less accurately estimate how many people alive today will no longer be around. We can also estimate the number of new-born children who will be added to the ranks of the population, since women who will bear children in the next 20 years have already been born, their numbers are already known, and we can make assumptions about fertility rates. Beyond the next fifty years, the future is fully open-ended, as there are no models we can rely on. The one that was based on the demographic transition served to examine the developments that took place over the past two centuries, but it is no longer of any use for the distant horizon.

Even though we can now reflect on the population balance that will be ultimately be attained in the long term, there is a short-term emergency, i.e. in the next fifty years. The belief that we can significantly influence the total number of people on the planet is wishful thinking. If

² On the question of urbanisation and its humanitarian implications, see the special issue we published: *Humanitarian Alternatives*, Focus "The urban bomb: which impact for humanitarian workers?", n°10, March 2019, <http://alternatives-humanitaires.org/en/tenth-issue-march-2019>

numbers grow, it will be at a slower pace, since people will have decided to have fewer children to provide them with a full, healthy life. Humankind cannot, however, avoid an increase of 2 to 3 billion people in the next half century, due to the demographic inertia that no one can avert. Instead, we can work without delay on the ways we lead our lives, making them more attuned to the environment and more resource-efficient. The real issue, the one on which hangs on the survival of the human race, is ultimately not so much the number of people, but their lifestyle.

Translated from the French by Alan Johnson

Biography • Gilles Pison

Professor at the Museum of Natural History, research associate at the National Institute of Demographic Studies (INED), Chief editor of the review *Population et Sociétés*, author of *L'Atlas de la population mondiale* (Autrement 2019).

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