Building the Mediterranean future together

DEMOGRAPHIC TRENDS AND OUTLOOK IN THE MEDITERRANEAN



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From 1960 to 2020, demographic growth in the Mediterranean Basin was slower than global population growth. Its population has nonetheless undergone profound changes, which may well continue until 2050 due to the significant inertia of demographic phenomena. Three events of particular interest are: **the shift of the demographic epicentre** from the northwest to the southeast; **the significant generational imbalance** between the southern (African) and eastern (Asian) shores, which have a very young population, and the northern shore (European), which is already characterized by marked demographic ageing; and **the increasing concentration of the population in urban areas**, particularly in the large agglomerations of the southern and eastern coasts.

Across the Mediterranean basin, population growth by 2050 will still mainly be driven by the natural balance. And this will be largely positive, solely due to the populations of the eastern and southern shores, which constitute the dominant majority. This demographic dominance is also likely to continue for a long time, because their age structure is young, their fertility is higher than the level guaranteeing the replacement of generations of reproductive age, and their mortality, although more premature on average than in the countries of the northern shore, nevertheless allows almost all of the female population to survive to reproductive age. All other things being equal, Mediterranean demographic growth will result, for the most part, from the intrinsic vitality of the eastern and southern shores.

The combination of these three phenomena produces some certainties that in turn, however, open up many unknowns. In the countries of the northern shore, where this is not already the case, deaths will quite soon be more numerous than births, unlike in the countries of the southern shore whose natural dynamics are very much in surplus, and are expected to remain so until at least 2050. Does this mean that the demographic weight of the southern shore will continue to increase? Yes. But to what extent? Might an increase in population within a finite space not lead to adjustments? And if so, of what type? A fall in births? A mortality crisis? Or an increase in migratory flows between shores with a demographic surplus and shores with a deficit? This summary takes a closer look at **the major demographic challenges facing the Mediterranean basin between now and 2050**, based on observations from the past 60 years and recent United Nations projections for 2050.





I. In the Mediterranean, the southern shore has taken the demographic lead, and is set to retain it

1. 1. 1960-2020: shift of the demographic epicentre from the northwest to the Levantine basin

In 1960, the countries with a coastline on the Mediterranean Sea were home to 239 million inhabitants, or nearly 8% of the world population (3.035 billion). In 2020, this geographical area has 2.2 times more inhabitants (522 million) but its weight within the world population (6.7% of the 7.795 billion inhabitants of the planet) has decreased. This relative demographic decline, on a global scale, is the consequence of low population growth in the Euro-Mediterranean countries that has also contributed greatly, within the Mediterranean basin, to a balance shift in favour of the southern and eastern shores¹. In 1960, 62% of the total population of the countries bordering the Mediterranean Sea lived in a European country, 23% in North Africa, and 15% on the Asian shore. In 2020, there are now fewer people on the northern shore (38%) than on the southern shore (39%), with the countries of the eastern shore accommodating 23% of the 522 million Mediterranean people (Figure 1).

The diversity of the pace of demographic transition explains this reversal of demographic hierarchies in the Mediterranean basin. Demographic transition is the shift from a situation of low demographic growth, where high mortality and a high birth rate more or less offset each other, to a new situation of quasi-equilibrium in which fewer births just about offset the number of deaths, which is also very low given the size of the populations.

In the countries of the northern shore, this mechanism has been completed for several decades. Today, the vast majority of deaths there are at older ages, resulting in a life expectancy approaching or exceeding 80 years. At the same time, fertility has declined significantly, to levels now below two children per woman everywhere. Despite the increase in the female population of reproductive age (15-49 years), this reduction in fertility has resulted in a decline in the birth rate and, therefore, in the size of recent generations, while gains in life expectancy have led to a huge increase in the relative weight of the baby boomers (those born between the late 1940s and the early 1960s) at older ages. So much so that **in 2020, the countries of the northern shore have almost as many people aged 65 or over (42 million) as young people under 25 (50 million).**

Figure 1. Differences in demographic growth on the three sides of the Mediterranean between 1960 and 2020 (numbers in thousands)



Source : Nations Unies, World Population Prospects: The 2019 Revision.

On the southern and eastern shores, the situation is **very** different. As of 2020, very few countries in this part of the Mediterranean basin have completed their demographic transition. With the exception of Cyprus, fertility now exceeds two children per woman everywhere, despite the spectacular decline observed since 1960: from 6.7 to 3.3 children per woman in Egypt; from 6.2 to 2.1 in Turkey; from 7.7 to 3.1 in Algeria, etc. In these countries, mortality has also declined significantly. But the progress has mainly been the result of a drastic reduction in the mortality of younger members of the population, with mortality at older ages remaining quite high. This change has led to a very large increase in the number of young adults of reproductive age, while the number of older people has increased more moderately.

In 2020, with barely 25% of inhabitants under 25 on the European shore, this proportion reaches 42% on the Asian shore and approaches 47% on the southern shore. In contrast, with the proportion of people aged 65 or over exceeding 21% on average on the northern shore, it barely exceeds 8% on the eastern shore and 6% on the southern shore. This young age structure of the populations of the countries on the eastern and southern shores of the Mediterranean favours the excess of births over deaths and the growth of the population at a sustained rate: it is currently +1.1% on average per year in the East (i.e. a doubling of the population in just over 60 years) and + 1.8% on average in the South (doubling in less than 40 years), versus barely + 0.3% per year on average in the North (doubling in 230 years).

^{1.} The northern (European) shore includes Spain, France, Monaco, Italy, Malta, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, and Greece. The eastern (Asian) shore includes Turkey, Cyprus, Syrian Arabic Republic, Lebanon, Israel, and the State of Palestine. The southern (African) shore includes Egypt, Libya, Tunisia, Algeria, and Morocco.

These unequal demographic trajectories have not only resulted in a shift of the Mediterranean demographic epicentre from the northwestern coasts (the Gulfs of Lion and Genoa) to those of the southeast (the Levantine Sea); they have also profoundly altered the age distribution. Today, of the 197 million young Mediterranean people under the age of 25, almost half (48%) live on the southern shore, 27% on the eastern shore and only 25% on the northern shore; and of the 65 million Mediterranean people aged 65 or over, 65% live on the northern shore, the others being divided almost equally between the eastern shore (16%) and the southern (19%). While, since 1960, demographic growth has involved all age groups in the eastern and southern Mediterranean, in the countries of the northern shore it has been very strongly concentrated at the top of the age pyramid (Figure 2). Finally, this strong demographic growth on the southern and eastern shores has encouraged an acceleration of urbanization.

Figure 2. Generational distribution in the various shores of the

Mediterranean in 1960 and 2020 (Numbers in thousands)

Source : Nations Unies, World Population Prospects: The 2019 Revision.

This growing concentration of inhabitants in urban areas is the result of two movements: firstly, the **increase in population** has mechanically transformed some villages into small towns, some small towns into big towns, and some big towns into more densely populated and larger cities; secondly, a rural exodus has slowed down **rural population** growth to the benefit of the largest cities.

All shores now have a metropolis of more than 10 million inhabitants; Paris, Istanbul and Cairo together account for almost 15% of the population of towns and cities in the Mediterranean basin. In 2017, in this geographical area, only two countries still had a predominantly rural population, Egypt and Bosnia and Herzegovina, whose urbanization rates were equal to 43% and 48% respectively.

On average, 70% of the population of the Mediterranean basin lives in cities, compared with barely 50% in 1960. In many countries on the southern shore, the changes have been dramatic, such as in Algeria and Turkey, where the rate of urbanization rose from around 30% to 70% between 1960 and 2015. The growth of urban areas is likely to continue in all the countries surrounding the Mediterranean, but it is to the east of the basin that it could turn out to be the most marked (Map 1).

This movement is not without impact on population growth. Of course, it is in the cities, where the rates of schooling and secondary education graduates are the highest, that the demographic transition is most advanced. In the countries on the southern and eastern shores of the Mediterranean, it is in cities that the average number of children per woman is the lowest and life expectancy the highest. But it is also in cities that the population, due to a strong rural exodus, is the youngest. The birth rate remains high there, ensuring a very significant endogenous demographic growth capacity. The same phenomenon prevails in the countries of the northern shore; this is the case, for example, in France, where the birth rate in large cities is much higher than elsewhere. But in the large cities of the North, individual and collective means of transport make the peri-urbanization of families possible, shifting urban demographic growth to the outskirts of large cities. The lower developmental level of the large cities on the southern and eastern shores prevents this mechanism for regulating high demographic densities. Populations are therefore congregating more and more in residential areas that extend only through the development, very often, of informal housing. This spatial extension is most often horizontal, but it can also be vertical, as in Cairo where informal housing has taken over the roofs and terraces of old bourgeois buildings in the heart of the city for several decades².



2. Alaa El Aswany, The Yacoubian building, Actes sud, Arles, 2007, 324 p.



Map: Main conurbations of the countries bordering the Mediterranean. Growth rate 2015-2035 (%)

Author: Doignon Y. (2019) Source: World Urbanization Prospects 2018

2. 2020-2050: a positive demographic trend driven exclusively by the southern and eastern shores All other things being equal, Mediterranean demographic growth will essentially result from the intrinsic vitality of the

Across the Mediterranean basin, population growth by 2050 will remain largely driven by the natural balance. And this will be largely positive due simply to the populations of the eastern and southern shores, whose relative weight, already dominant, continues to increase. The demographic dominance of the southern (especially) and eastern shores is also likely to continue for a long time. In fact in these regions, the combination of all these factors means that the population is likely to continue to grow swiftly: a young age structure, fertility above the level guaranteeing the replacement of generations of reproductive age, and mortality, although earlier on average than in the countries of the northern shore, nevertheless allowing almost the entire female population to survive to reproductive age.

growth will essentially result from the intrinsic vitality of the eastern and southern shores, and the northern shore will therefore necessarily continue to see its relative weight decline. Unless there is an exceptional, major disaster, the demographic trajectory of the Mediterranean basin up to 2050 appears clear, as confirmed by the most recent demographic prospects drawn up by the United Nations Population Division (UNPD) (Figure 3). Even in the low variant projection, which includes a very marked decline in fertility over the next 30 years (a fall of more than 25% in most of the countries of the northern shore and of 40% in the countries of the eastern and southern shores), an increase in average lifespans of around 6-8%, and either stabilization of international migratory balances at their current average levels (the most widespread scenario) or a sharp reduction (Turkey, Syrian Arab Republic, Italy, and Bosnia and Herzegovina), it is estimated that the Mediterranean basin will account for 580 million inhabitants in 2050, 60 million more than in 2020, the equivalent of the population of Italy today.





Figure 3. The Mediterranean population will continue to grow between now and 2050

Source : Nations Unies, World Population Prospects: The 2019 Revision.

With fertility declining more moderately in the countries of the southern and eastern shores and slightly recovering in the countries of the northern shore (medium variant of the UNPD), **the population would then exceed 635 million people in 2050, i.e. a gain of 110 million inhabitants in thirty years, the contemporary equivalent of the sum of the populations of Egypt and Greece**. Even in this average variant which is a priori more favourable to them, the population of the northern shore would not reach replacement rate and would have 10 million fewer inhabitants in 2050, while the southern shore would gain almost 90 million and the eastern shore more than 35 million (Figure 4). In 30 years, 45% of Mediterranean inhabitants could therefore reside on the southern shore, 30% on the northern shore and 25% on the eastern shore. This demographic vitality of the southern and eastern shores is driven by a much younger population than that of the northern shore. The contrast will remain marked, as evidenced by the UNPD prospects. In the countries of the northern shore, the proportion of people aged 65 or over is expected to increase further and to exceed by 2050, more or less significantly depending on the variant, that of young people under 25 (Figure 5). The situation will be quite different on the southern and eastern shores where, despite more pronounced aging of the population (a decline in the proportion of young people and simultaneous increase in the proportion of older people), young people will continue to be more numerous than older people regardless of the extent of the future decline in fertility.

Figure 4. Demographic consolidation of the southern shore by 2050



Source : Nations Unies, World Population Prospects: The 2019 Revision.

Figure 5. Between 2020 and 2050, ageing intensifies in the North and spreads progressively to the East and the South



In 2050, more than one in two young people under the age of 25 will live on the southern shore, one in four on the eastern shore and only two in ten on the northern shore. Conversely, nearly half of the 127 million people aged 65 and over are expected to reside on the northern shore of the Mediterranean. Structurally younger than the European populations, the populations of the southern and eastern shores will nevertheless have to contend with very real ageing, resulting in an increase in the number of people aged 65 or over. There could be 37 million on the southern shore and 29 million on the eastern shore.

In 2050, contrasts in the age structures will still be very marked between, on one hand, the northern shore and, on the other hand, the southern shore and, to a lesser extent, the eastern shore. Subsequent demographic changes will be affected by this for a long time, as evidenced by the extension of the average variant of the UNPD prospects to 2100. The population of the European shore would continue its inexorable decline until it becomes, by 2070, smaller than the population of the eastern shore, which would then be reaching its demographic peak. However, no decline is expected on the southern shore before 2100, which alone should ensure demographic growth in the entire Mediterranean basin until the end of the 21st century.

The demographic decline of the northern shore is a mechanical effect of its low intrinsic dynamics. In this area of the Mediterranean, a fast and sustained rise in fertility to the level guaranteeing the replacement of generations (at least two children per woman) is a purely hypothetical possibility (the high variant of the UNPD prospects). Fertility is currently 10% to 35% below this level, depending on the country. And the gap may widen if the general trend of increasing average age at childbearing continues. In the countries of the northern shore, the trend is indeed toward an increase in this age, and in some cases has been since the late 1970s: more time spent in education, the more difficult and later integration of young people in the labour market, and the relative increase in the cost of housing are the main factors of this increase.

Today, age at childbearing very often exceeds 30 years. However, beyond the age of 30, there is an increase in the proportion of couples having difficulty conceiving a child; difficulties only very partially solved by assisted reproductive technologies due to the fact that their efficacy declines sharply as the woman's age increases. Even if the most targeted family policy measures were implemented everywhere (financial benefits, equipment, services, employment and gender equality support, etc.), there is no evidence that they would actually succeed in changing behaviour. The populations of the most economically advanced societies have long been committed to the logic of individual accumulation and consumption; it is a matter of individual achievement. In this context, the presence of children is a brake, as evidenced by the growing numbers of couples without children with a high level of income (Double Income No Kids), foreshadowing, perhaps, a post-Malthusian model. After an era of reducing numbers of children in order to focus revenues on one or two children, does there come a time when children are given up altogether, so that individuals can enjoy their income fully, whether alone or as part of a couple? Concerns about the future of the planet may even provide a reason for virtuous renunciation of the desire for children.

II. From projections to demographic outlook: what if a (small) proportion of the southern population moved north ?

1. It is unlikely that anything will prevent the southern shore from increasing its demographic preponderance

Ultimately, simply because of its very low fertility, the European countries of the Mediterranean will continue to lose inhabitants. The decline could even be intensified due to a slowing increase in life expectancies. For now, the preconceived idea is that the average age at death will continue to increase.

For some years, however, in some of the richest countries in the world, life expectancies have been increasing less quickly (Sweden, Denmark, France), or have even fallen, as in the United States. Future gains in life expectancy depend on the preservation of assets and a reduction in mortality from cancer and degenerative diseases, the gains linked to the fight against other diseases (in particular cardiovascular disease) being more and more limited. Today, to continue to gain a few months of life expectancy, considerable investment is required. At a time when the Covid-19 pandemic has revealed how vulnerable and ineffective the richest states on the planet are, the question arises as to how many will be able to preserve, if not develop, primary care medicine, the first essential link in the healthcare chain, while continuing to deploy ever more expensive medical engineering? Unless the Covid-19 crisis leads to a rapid and profound questioning of public policies and the resources that might be dedicated to them, it is difficult to see how the countries of the northern shore could manage, as a group, to achieve a sufficiently high increase in life expectancy to ensure very substantial demographic gains. While north of the Mediterranean Sea the number of inhabitants is set to decrease by 2050, the outlook is very different in the south. The demographic inertia of a population can be compared to that of an ocean liner: it takes time to change course, especially when its cruising speed is high. And this is the case in many southern countries, first and foremost Egypt, due to relatively high fertility, a high proportion of younger people, and an average lifespan of over 70 years. There remains only the question of the magnitude of future population growth, and therefore the magnitude of the possible decline in fertility. Is it conceivable that the trend will soon swing towards that of the Euro-Mediterranean countries ? It's very unlikely. In the absence of extremely serious cyclical events (war, revolt, famine, pandemic, etc.), broad access to higher education among young people, a very high level of female integration in the job market, the emancipation of women from male guardianship, and widespread access to contraception are all prerequisites for low fertility; prerequisites that require both significant change in the social relations between men and women-which takes time, as it is impossible for mindsets to change overnight—and massive investment in the education and health sectors. However, most countries on the southern shore are still struggling to offer secondary education to all young people. For women and men in the southern Mediterranean to adopt fertility behaviour close to those of Europeans, they must at least be able to have a similar lifestyle and standard of living to the latter.

If a sharp decline in fertility is to occur in southern countries, it will be a long term decline. The generations that will ensure births over the next three decades have every chance of succeeding in replacing each other on a one to one basis, if not more. It is not clear, however, that they will benefit from life expectancies that increase at the same rate in the future as in the past. In the countries along the southern shore, average lifespans have reached the level corresponding roughly to the eradication of infectious diseases. The gains to be made in order to approach and then exceed the 80-year-old threshold require significant progress in the treatment of cardiovascular diseases, involving considerable investment and improvement in public health systems. However, with a population that will continue to increase, the efforts required will be even higher. Are the countries of the South, and those of the East, on a socio-economic path that allows them to hope for major progress in health infrastructure (in particular)? Aside from a few cases, one can reasonably doubt this. The demographic ageing of the southern and eastern shores might therefore result less from an increase in life expectancies than from the arrival of large generations at the age of 60 and beyond.

2. Demographic growth under strong spatial pressure: how sustainable are the increases in inhabitants on the southern and eastern shores?

In the north of the Mediterranean, given the expected decrease in the number of inhabitants, the average rates of urbanization are unlikely to increase, especially since they are already very high; this does not exclude, however, phenomena of increased population density in certain areas. It will be quite different in the East and, even more so, in the South. It is in the cities, and in the largest of each country in particular, that young people, those of childbearing age, are already concentrated. The internal demographic dynamics of the large cities will therefore be strong, and as the countryside can also be expected to continue to supply cities with young adults, each country's urban population proportion is likely to increase. The most dynamic cities will benefit the most from these movements, namely the capitals and the main towns along the coasts. These places are where commercial and tourist activities are most often concentrated. The trend is also likely to be accentuated by global warming. Because it will affect inland areas the most, it may encourage populations to move toward the coasts. It is hard to imagine, barring a major disaster, populations taking the opposite path and spreading to the countryside, which is often arid and/or incapable of welcoming massive numbers of returning migrants. The developing trend does raise many concerns. The first relates to the density of the population in urban areas and the capacity of large cities to accommodate all inhabitants in a decent manner.

The literature abounds with descriptions of **the already very difficult living conditions** of many urban dwellers in the very large cities of the southern shore of the Mediterranean, as per Patrick Geddes' gloomy maxim "Slums, semi-slums and super-slums, such is the city of progress", quoted by Lewis Mumford in 1964 at

And the apocalyptic analysis of urban poverty offered by Mike Davis more recently ⁴ calls for no less pessimism. The agglomeration of new populations in the large cities of the southern Mediterranean often precedes the construction of housing. With **informal housing** constituting the all-toocommon flip side of its increase, we should perhaps **not consider the progression of urbanization as a necessary factor of progress, especially in a context of global warming.**

Lewis Mumford, La Cité à travers l'Histoire, 1964, Paris, Seuil, p. 545, translation of The City in History, 1961, New York, Harcourt, Brace and World.
Mike Davis, Le pire des mondes possibles. De l'explosion urbaine au bidonville global,

^{2006,} Paris, La Découverte, translation of Planet of Slums, 2006, London, Verso.

The extreme concentration of populations in the same place is indeed an aggravating factor of pollution and, in general, a factor that greatly degrades the environment in which people live. Will the large cities of the South be able to accommodate, under sufficiently satisfactory conditions (running drinking water, wastewater treatment, and garbage collection; educational, social, and medical infrastructures, etc.) large surpluses of inhabitants within the time frames dictated by population growth? The authors of this note doubt it. These questions highlight one of the major limitations of the UNPD projections: they do not take spatial constraints into account. Their estimates are made as though every population benefits from a territory that permits it to develop forever, without quantitative constraints. This was hardly a problem while populations were small. But the demographic growths recorded in the south of the Mediterranean in countries that all comprise large areas of desert now call into question the relevance of long-term demographic projections. Egypt is a prime example of this. Only 5% of the land area of this country is habitable. That might have been plenty in 1960 when the country had only 27 million inhabitants. It is a different matter now that, in the same territory, there are 102 million people. What will happen in 2050 with, depending on the low, medium and high variants of the UNPD, a population comprising 44, 58 or 73 million additional people? How far do we think population density can increase without seriously compromising a population's ability to peacefully coexist?

3. Migration: an inevitable response to natural demographical imbalance?

The consequences of the strong demographic growth of the southern Mediterranean countries will go well beyond merely compromising their population's peaceful coexistence.

One purely academic hypothesis: these countries manage to offer their nationals living conditions that, in just thirty years or so, come close to current European standards. Notwithstanding the requirements for achieving this (financial resources, human capital, governance, etc.), this supposes sudden and spectacular economic development that is likely to have seriously harmful effects on the local and global environment. An alternative, and sadly more probable, hypothesis: in these countries, living conditions remain difficult, even worsening.

The countryside is increasingly affected by global warming (expansion of deserts, water stress, etc.) and can no longer feed its inhabitants, who migrate in their masses to the capitals and large coastal towns. Submerged, these could become real social powder kegs. Home to a large population of young people, a growing number of whom have higher education qualifications, faced with high unemployment and living conditions far removed from those of their contemporaries in the North, and without any real prospects for the future, these cities could see major protests and revolt, as was the case during the Arab Spring. Might unsustainable urban population density then lead to massive emigration, possibly encouraged and supported by local authorities?

Demographically, as well as culturally and economically, the Mediterranean Basin is not an enclosed space within which only migration only occurs between countries with a coastline. This ancient gateway into other demographic areas seriously complicates our understanding of the region's demographic prospects. Significant demographic movements exist between the countries with a Mediterranean coastline, both in the north and the south, and sub-Saharan Africa. Yet the greatest demographic growth of the 21st century will take place in this region, the inhabitants of which are expected to almost double in number by 2050 (from 1.1 billion to 2.1 billion), according to the central variant of the UNPD projections. The implications described for the countries of the southern shore of the Mediterranean also apply for those of sub-Saharan Africa but to a greater extent, with its higher fertility, lower life expectancy, a level of economic development that is much less advanced, and a living space that is already largely desert and already severely compromised by global warming. For the very youngest members of the population (42% under 15 years of age in 2020, or nearly half a billion people), what reasonable prospect presents itself other than migration to the large coastal cities of the Mediterranean coast?

Analysis shows that some demographic projections are very unlikely to be sustainable on the southern shore of the Mediterranean. A report produced at the end of 2019 provides a more in-depth assessment of the demographic trends and prospects in each Mediterranean country ⁵. It is likely that some countries will not have the capacity to accommodate the new inhabitants in a sustainable and peaceful manner. Two scenarios are then possible: 1. A demographic crisis characterized by an increase in mortality or a collapse in fertility, the consequence of which would be the local regulation of population growth; 2. Countries could facilitate, or even organize, massive emigration movements. In this second scenario, people will seek to go to a northern country rather than to another country on the southern shore.

5 - Full report at https://planbleu.org/publication/tendancesdemographiques

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