

CLIMATE CHANGES, A FORGOTTEN WORLD EMERGENCY: CHANGES IN MEGALOPOLIS AND IN LARGE URBAN CENTER

THE MAJOR URBAN CENTERS: CLIMATE CHANGES AND THEIR IMPACT

According to various estimates, now it lives on terrestrial planet not less than 6,500,000,000 people. Of these approximately 1,000,000,000 (15%) lives in large metropolitan areas. This estimate, obtained through the Wikipedia's data, refers to 135 metropolitan areas with a population over to 3,000,000. Among them we find also four Italian areas: Milan (7,050,000), Naples (5,000,000), Rome (4,340,000) and the Veneto's one (3,270,000).

The large metropolitan areas, in particular, and the major urban centres in general, both due to the nature and extent (often without interruption) of their settlements - buildings, roads, railways, etc. – and due to the human activities there present - residential, industrial, road, iron and water transport, (rivers, lakes and sea), etc.. - induce a local change in climate which is, by now, a known and demonstrable data. It is no accident that the European Community has dictated a series of regulations to define the maximum allowable concentrations of certain substances, recognized for compromising both human health and the ecosystem.

On the 25th November 2009, it was presented at the Italian Ministry of Labour and Health a study conducted in the framework of national project EpiAir, sponsored by the National Centre for Disease Prevention and Control (CCM), an organization of coordination between the Ministry of Labour, Health and Social Policy and the Regions for the surveillance, prevention and timely response to emergencies. This study highlights, among others, the direct effects between some acute pathologies (see infarction) and the prolonged exposure to high concentrations of these pollutant agents.

Moreover, in these urban areas is found, in addition to the above chemical alterations of the atmosphere even physical changes such as temperature, pressure, air currents, radiations, electric potential etc...

When natural disasters occur, such as floods or earthquakes of high gravity, it is rightly appalling to consider the many deaths they cause, we can see, count, weep the broken lives which are there. However, as it is increasingly in the scientific literature, air pollution kills more victims who have the misfortune to be anonymous, to blend in and be classified as natural deaths, so they are not physically counted, but they are there and are many. But the pollution impact has repercussions in other areas with high costs for society; beyond the damage to the artistic heritage it is mentioned as an example the news, a few days ago reported, of the blockade of the city of Beijing due to the smog.

IDEAS FOR A PATH TO FOLLOW

We know that concerning the climate changes the scientific community is divided between those who see already compromised the "health" of the planet and those who believe excessive the alarmism about the greenhouse effect, convinced that the concentrations of known gas "implicated", dispersed in the atmosphere, not yet represent an objective danger to the planet.

Conversely, without the possibility of divisions, more and more certain is the presence of high concentrations of harmful gases in the atmosphere of the big metropolitan areas and, as seen,

increasingly well known is their dramatic effect on human life and human activities, as well as on the microclimate that they contribute to alter.

Clearly that was not enough to establish rules determining the concentration limits and the maximum number of times that these can be overcome. A testimony of this, known and documented, it is certainly what happens in Italian cities, particularly Naples: to this day, in 2009, on the 35 excesses allowed for the concentration of PM10, already have been registered 206

It is now demonstrate that cars are not the main sources (they are in third place), but essentially, we continue to act only on them.

Missing, we believe a unified and practical approach to the problem. In addition to the rules defining the limits of the concentrations of pollutant gases in the atmosphere (and the number of times they can be exceeded), a legislation to force proper territory planning is needed. In this way, as is the case for the gases responsible for the greenhouse effect, it is possible control, and act on the anthropogenic sources which release in the atmosphere the polluting agents. This planning should also consider all other aspects that significantly interact with the ecosystem in metropolitan areas such as the relationship between the waterproofed areas and the percentage of green present, etc...

Another important aspect is related to the large metropolitan areas which, bathed by the sea, rivers or large bodies of water have an intense maritime activity. For these areas it is determined that the main source of pollution is precisely from such activity. It is worth remembering that the ships need to always keep the engines (although those auxiliaries) fired to ensure the services on board (now everything moves with electricity). It is time, finally, that the International Community firmly intervenes on this issue. It is not clear why the ports can not create electricity socket to connect the vessels berthing to take off the engines.

Conclusions

It is sure that it is essential, today than ever before in human history, to be aware that the nature, the planet Earth has its limits, its equilibrium. This involves, by the International Community, to an even greater effort in order to have an increasingly wise and rational management of assets and resources the planet offers and of the many activities that humanity must have in place to use them. So the international meetings are very important, like the one we are preparing to celebrate in Denmark, on the control of emissions of "greenhouse gases" that threaten the climate equilibrium of the planet. However, it is considered that it is also important to remember that 15% of humanity lives in large metropolitan areas where the atmosphere has already been mined, where the microclimate has been altered, where the man already dying.

Our appeal, humble, sincere and heartfelt, is that you can take note of this tragic reality and discuss it, also along with that of the global climate of the planet.

Italy, Naples 4 December 2009

Comitato Scientifico Giambattista Vico