Introduction address at the EFCA Symposium in Strasburg

Discours d'introduction du Symposium EFCA de Strasbourg

Giuseppe FUMAROLA*

Authorities, Colleagues, Ladies and Gentlemen,

It is a great pleasure and an honour to welcome each of you in this prestigious and symbolic place. We are grateful to the European Parliament for the hospitality and for the opportunity given to us to debate in the heart of the European policy an issue that we believe especially urgent.

Last year an in-depth discussion within EFCA came to a conclusion that measures to limit climate change below tolerable levels should be conceived within an integrated approach with existing and future policies in other public domains, notably in clean air.

Air pollution and climate change became prominent issues in different moments, for different reasons, and had distinct histories. Either in several European countries or in USA, air pollution problems emerged in the sixties in a contest of certainty, due to the evident harmful effects on public health, while the climate change problems have been emerging some time later in a perspective of probability, that our civilisation in the long term could have affected somehow a change in climate, through a switch (downward or upward) of the Earth's surface average temperature. As a matter of fact the two issues differ, or are perceived to differ, in several other characters. In general, air pollutants are easily reactive substances with short lifetime, while greenhouse gases are, with few exceptions, hardly reactive with long lifetimes; air pollution is blamed for adverse local short-term effects, while climate change is expected could raise difficult situations at global level sometimes in future; air pollution is on the agenda of any local and national recognizable and recognised authority, while for climate change it is hard to figure out a worldwide authority; air pollution is commonly associated to urban or industrialized areas for which urgent local measures are requested, while climate change sounds more linked to remote desert or deforested areas or glacial zones which need questionable global commitments (the GHG's concept is not yet completely perceived even if the public opinion is getting more aware of the phenomenon).

In other words air pollution and climate change have run on parallel rails for long time**. In recent years the scientific community started to convince itself that the two environmental problems should better be faced through a systematic and integrated approach able to identify co-benefit and no-regret solutions.

I do not have to present any EFCA's position on the issue, since EFCA commits to open meetings and confrontations, like this Symposium, the research of reasonable and feasible solutions to share in dialogue with different parties in Europe and to bring to the attention of the regulatory bodies of the Union.

I would profit of this chance to convey some personal thoughts particularly on one of the aspects suggested for our debate, concerning the temporal and geographical scales which could result more effective and efficient for implementing integrated policies.

We are currently urged not only by air pollution and climate change, but also by matters concerning sustainable development, energy consumption, waste water, urbanisation, solid wastes, mobility, public health, biodiversity, desertification, etc., each of which, from time to time, is displayed as the central problem or the most urgent one, resulting deceptive

* *University of L'Aquila, Italy. President, EFCA.*

** *A common birthday may be assumed for both, air pollution and climate change. The first environmental law of the industrial age has been the Alkali Act adopted in Great Britain in 1863. It required at least a 95% condensation of the HCl released to the atmosphere without any control from the LeBlanc process for the production of the sodium carbonate. The Gossage Tower adopted, able to condensate about 99% of the effluent acid, has been the first end-of-pipe technology and the first win-lose solution.*

for the public opinion. The point is that all those matters are linked each others, together with social and economical implications, in a kind of entangled yarn ball which we would like to work out.

The aim of this Symposium is not to focus the attention only on a couple of those matters, but to reasonably assume air pollution and climate change as the head and the end of the yarn along which all the other environmental aspects come out. Therefore, to research co-benefits for air pollution and climate change means to look for solutions preferably to the environmental problem as a whole.

As a working example I would like to mention a situation occurred on a small geographic scale which however anticipated current events in the world.

In 1994 United Nations adopted a Convention to Combat Desertification which was ratified by 191 Countries. In compliance with the commitments accepted with the ratification of the UN Convention, Italy prepared its National Action Plan which, surprisingly, showed that some areas in the south, in the regions of Puglia, Sicily and Sardinia regions, were particularly sensitive to desertification, along the definition given by the same Convention [1].

The news is that the discovered situations were not a consequence of an occasional early local climate change, though those areas are characterised by low annual rainfall. They were the result of a social revolution which started in the sixties due to large industrial settlements in neighbouring areas which employed several thousands of workers removed from farming activities. It was easy to persuade farmers to abandon low fertile soils together with livestock for a more stable and profitable job in industry. At that time the national policy used to encourage the development of industry rather than agriculture.

The consequence of that policy was that a huge number of polluting sources has been located in quite restricted areas, a migration phenomenon towards towns has been encouraged and broad rural areas have been abandoned, causing a contribution both to short term air pollution and to long term climate change.

This happens today all over the world at much larger geographic scale and once again as a consequence of social problems rather than of climate change. In North Africa, since the mid-1990s onward a massive migration towards the Mediterranean coast, and partly towards European countries, has been observed from Morocco, Algeria, Tunisia and sub-Saharan's countries. The rural population in the countries overlooking the Mediterranean see is dramatically reducing. A voluntary or forced migration from countryside, pushed by persecution, violence, civil wars, country's instability, economic decline, takes place in several regions of Africa, central America and Asia [2, 3]. While a couple of centuries ago the urban population in the world was few percents of the global population, in 2007 it exceeded the rural one.

The growing urban areas everywhere in the world, in large cities or megacities, entails the increasing demand of energy, potable water, chemical products, land for urbanization, roads, mobility, and, in a synergic way, the increasing production of solid wastes, waste water, environmental impact, air pollution and climate change [4].

On the other side the abandonment of rural activities causes degradation of the lands triggering the soil erosion and the modification of the water cycle, which, on their turn, contribute again to both air pollution through erosion of fine dust and climate change.

As a result of the migration process both the rural poverty and the degraded life in the outskirts of large cities are exacerbated, threatening not only social life and economy but environment as well.

Going back to the Italian hotspots mentioned before, after forty years the situation is that some rural areas are still abandoned and the air quality in the industrial and urban areas does not yet comply with the European standards, at least for ozone and PM. Furthermore, an important contribution to the local air pollution now is due to non-local sources, anthropogenic and/or natural, through long-range transport phenomena. The remaining margin to reduce the industrial emissions will become unimportant once all the plants will fit the Best Available Technologies. Similarly, the process of technological improvement of conventional vehicles to reduce emissions will run out sooner or later. Then it will be ever more difficult to find out additional effective local measures to improve air quality while the towns will continue to grow.

For half a century, and still today, all the efforts have been conceived to reduce industrial environmental impact or to improve transport and mobility in urban areas while nothing or very little it seems has apparently been done for the abandoned areas, now at a risk of desertification.

If both sides of the medal are not adequately considered and we continue to worry mainly (or only) for urban and industrialised areas without any attention to the increasing poor and degraded lands in the world, in very few decades it could be too late to draw back the environmental policy. This means that our attention may not currently be confined to the reduction of emissions of pollutants influencing both air pollution and climate change, the latter of which of course is crucial, but we must look around also to the causes which produce the growing demand of energy and mobility and to the consequences on the environment, that is our attention must take into account economical and social aspects.

A policy in this direction, for example, should prevent the increasing gathering of the population in limited areas of the Earth, promote and preserve small communities in towns or villages everywhere, in developed and developing countries. This is possible through integrated projects conceived to solve the local problems in their whole, provided that the environmental aspects are internalized in the cost-benefit balance, in terms, for example, of provision of water

for the agriculture, exploitation of biomass from woodland due to periodic selective cutting of woods, biodiversity preservation, reduction of fire probability, reduction of soil erosion, respect and preservation of local natural and cultural peculiarities, less petroleum consumption, less CO_2 production, etc. If these benefits are not taken in due account of course there is no way to justify any funding for projects in that direction (for example through Clean Development Mechanism).

Let's make a couple of trivial examples of solutions which take to a different view of an environmental costs-benefits balance.

A wind power generator of 3 MW in one year may produce 4 500 MWh, based on average of 1 500 h/year, that is it may cover the consumption of about 625 people in Europe (assuming an average of 7 200 kWh/y pro capita). We are aware of the environmental advantage of this renewable source insomuch as to justify grant aids and subsidies by the governments. What about the benefit if we install the same generator in a poor village in a developing country. It could satisfy the energy requirements of some thousands of people and discourage them to emigrate. The benefits in the second case would be enormously higher if we internalize all those negative aspects produced by migration in large cities and all the positive aspects if those people remain in their own lands. The first solution is an example of co-benefits in our backyard; the second would be a strategic multi-benefit solution at global level.

The European Union has been adopting ambitious environmental standards, together with voluntary instruments like Ecolabel or Integrated Product Policy in order to promote the production of goods environmentally friendly and in safety. However, as a direct consequence of that policy, some productions are moved in developing countries, which turn a blind eye to environment, safety and sometimes to ethic aspects. This policy reduces the impact on our air quality, but at the same time charges the climate change due to the import of products which may imply a long distance transport. It may be thought that it is no time for trade protection, but for the environment yes, it is. Most likely for a huge number of products the import/export could not be justified if the environmental costs were internalized. This is also true for several farming products which could easily grow in our lands. Under the WTO rules there are no specific agreements dealing with the environment, even if it is allowed to members to adopt trade-related measures for the protection of the environment [5]. Within the world trade domain, for example for natural food products, great opportunities of co-benefits could be achieved with a policy which promote local productions everywhere in the world and discourage the import/export, thus internalising at least the transport environment costs.

To conclude, I believe we should give a strong message to our regulatory bodies that co-benefits for the environment as a whole do not come only from emission trading, renewable energy sources or low-emission vehicles but may be achieved, in an effective and strategic way, in any aspect of our life, in any domain, for which an integrated approach should be adopted first of all.

This would be the proper way to apply the "polluter pays" principle with respect to the environment preservation, to foster integrated solutions, to gain multi-benefits, to satisfy the community's expectations, to eradicate poverty which is believed to be "the greatest global challenge facing the world today and an indispensable requirement for sustainable development" [6].

I am confident that in a couple of days this Symposium will be able to add some important value to the current international debate on the co-benefits concept and deliver to the European policy makers useful recommendations.

On behalf of EFCA and personally I wish to thank very much each of you for coming and for the contribution you are going to give.

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