Intervenção do
Subsecretário Regional dos Assuntos Europeus e Cooperação Externa
Governo da Região Autónoma dos Açores

Conference

"The Road to Rio: Regions Building the Green Economy"

Panel 1:
"Climate Change: Regions are leading the way"

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On behalf of the President of the Government of the Azores and President of the Conference of the Outermost Regions of Europe, Carlos César, I obviously start by greeting all participants in this important Conference.

I would also like to express to *AER* and *R20* network the appreciation of the Government of Azores for the invitation, hospitality and the opportunity that was provided to us to share this moment of common reflection on climate change and the role of regions.

We face a moment in History that clearly underlines the importance of regional governments and of ensuring greater recognition and support of the role that subnational authorities play in this global issue: - the commitment on green economy and sustainable development.

In this context, allow me to start by a brief introduction on my region, its geography and legal statute: - The Azores, an Autonomous, Atlantic and Outermost Region of Europe.

The nine islands of volcanic origin, that compose the Azores archipelago, lie right in the middle of the North Atlantic Ocean, about 1,500 km from the European continental coastline and 3,600 km from North America, scattered over more than 600 km of ocean.

The islands are not only extremely isolated – from the mainland and between themselves – but also different in terms of dimension and population, between the 17 km2 and 450 inhabitants of the smallest, Corvo, and the 745 km2 and 135.000 inhabitants of the biggest island, São Miguel. But although having small land territories, the Azores have an enormous maritime area, with an economic exclusive zone of almost one million km2.

On the other hand, this Portuguese archipelago, with a total population of 245.000 people, is an Autonomous Region, with a regional parliament and Government and a large broad of powers, particularly, on matters such as the environment, nature and natural resources; protected and classified areas; land and sea conservation and protection zones; water resources; territorial planning, as well as energy, including renewable energies and energy efficiency. That gives us the ability to find the best solutions to our very particular territorial characteristics.

And the Azores are also part of the European Union, with a special statute, defined in article 349 of the Treaty: - an Outermost Region (together with 7 other regions: the overseas French departments of Guadeloupe, French Guiana, Martinique, Réunion and Saint-Martin, the other Portuguese Autonomous Region: Madeira and a Spanish Autonomous Community: the Canary Islands).

This special statute is based on “the structural social and economic situation” of OMR, “which is compounded by their remoteness, insularity, small size, difficult topography and climate, economic dependence on a few products”.

Having said that, what are the specificities and the role of the Azores - as islands and ultra-peripheral region – in the field of climate change action?

Firstly, geographical dispersion and extreme isolation means that the environmental vulnerabilities of these islands are much greater than those of the continental territories.

As an example, scientific projections for the case of the Azores, allow us to anticipate temperature increases of 1 to 2 degrees centigrade at the end of the 21st century, as well as an increase in rainfall, distributed by more uneven and concentrated rainfall events, and the rises in the ocean level.

So, due to the fact that the Azores are an archipelago and that its costal area (of 844kms) is quite extensive (when comparable in size to the coastline of the mainland Portugal - 943Kms), this may result in several human and technical problems that will reach very significant proportions.

We could mention erosion problems, coastal flooding and an increase in the intensity of storms, in the degradation of the quality of water and costal hydro resources and in the viability and integrity of ports and their infrastructures, but also biodiversity and fisheries, agriculture and human health, amongst other aspects.

And these are issues of concern to all islands – not only the Azores – and particularly the ones in the Pacific and Indian Ocean. The implications of

climate changes are, in fact, immense: - they affect all sectors and definitely imply - and will imply more in the future - substantial investments.

In the Azores, on the last decade we have been working very hard on territorial planning and management of each one of the islands.

We´ve just launched an Integrated Management Plan for Water Resources, on an island level and also regional, a document that is currently under public discussion.

We've also established the regional and island natural parks and plans, that includes land and sea territory and all kind of, EU, internacional and regional classified, reserve and preservation areas.

And – to be short on the examples - the Strategic Plan for the Management of Waste in the Azores frames the solution for the treatment and final destination of all the residues (waste) produced in the Azores. It bases itself in the minimization of the production of waste, in the recovery of its value, in the valorization of the natural resources and in the protection of ecosystems and guarantee of public health.

In this context, on islands, the solution of the problem of management of waste, of water resources and territorial management (includind costal lines) are fundamental axes of the sustainable development of our region and represents a priority in terms of the public resources that are committed to this action, in order to better understand, regulate and prevent the effects of climate change.

On the other hand, it is know, that the loss of biodiversity around the world is one of the main concerns of the scientific community. The Azores,

Islands in general and OMR are characterized by a hi-level of biodiversity and given their extensive natural area compared to the average for the European regions, they form precious reserves, but can be severely affected, in many respects: animal reserves (food and wealth of species) and plant reserves (supply of wood, agriculture products, plants used in the pharmaceutical industry and medical research, etc.

Protecting natural areas, on land and see, represents, thus, a considerable challenge and, once again, substantial costs and investment.

Another important issue is pollution. In the global context, the Azores is an insignificant emitter of GHE. However, the Azores are equally affected by these emissions and, comparatively speaking, may even be more affected than Regions in which these emissions are greater. And, above all, we want to give a good example also on this issue.

Thus, the Regional Government of the Azores completed an inventory of the most environmentally significant activities in the region, namely, those that mostly contribute to the **emission of Greenhouse-Effect (GHE) Gases**, and identified the sectors with the greatest potential in the carbon market.

Subsequently, the legal framework for Air Quality and Atmospheric Protection was adopted on October 2011, in is double dimension of prevention and control of the polluting emissions for the atmosphere and the evaluation and management of air quality.

This legal framework – I would like to underline - also structures the Azores policies related to the inventory of polluting sources and the fight against climate change and mitigation of its consequences. This action is in

line with the signature, by the Azores, in 2010, of the declaration “R20: Regions for Climate Action”.

But one should have in mind that islands face not only problems on climate change, but also represent clear and very important assets to study and face its consequences.

Firstly, outermost islands are ideal laboratories for future solutions in several areas, such as pharmaceutical research or for predicting the effects of biodiversity loss.

This is the case of the BEST programme has two main priorities. The first involves the conservation of protected areas, i.e. managing those already in existence and creating new ones, and also reducing threats to biodiversity (invasive species, overexploitation, pollution, change, damage and loss of habitats). The second concerns the sustainable use of ecosystem services, which involves measures for adapting to climate change or even setting up ‘green’ infrastructures.

In our particular case, the geographical position of the Azores means that they are ideally placed to observe and monitor natural phenomena.

Creating and consolidating meteorological systems and international networks would allow acquiring extensive knowledge of these phenomena.

As a recent example, the US Department of Energy installed in the island of graciosa, in the Azores, an **Atmospheric Radiation Measurement (ARM) Climate Research Facility, on of the 6 in the world** multi-platform

scientific user facility that supports research for addressing the major uncertainties of climate models - clouds and aerosols.

ARM provides the national and international research community unparalleled infrastructure for obtaining precise observations of key atmospheric phenomena needed for the advancement of atmospheric process understanding and climate models.

Another example could be given on the problematic of natural risks, were we should emphasize the work of the Centre of Vulcanology and Geological Risk Evaluation of the University of the Azores or, in maritime research, the work of its Oceanography and fisheries Department.

The creation of networks, in different fields, is thus critical to reveal and deliver the potential of islands on climate change issues.

Another aspect related to the problematic of climate changes consists, of course, in the need to expand the use of renewable energies.

In the first place, we must stress that there are, in the archipelago, nine small and isolated electrical systems that are not interconnected with each other or to the outside, generating added difficulties. Nonetheless, these systems provide environmentally opportunities that should not be neglected.

The Azores has been at the forefront in the use of endogenous energy resources. One of the first hydroelectric plants in the country was built in the island of S. Miguel in 1899.

We should also underline the pioneering spirit of an experimental project for the production of energy from the use of the oceanic tides, which was

first implemented, in 1998, with the construction of the Oscillating Water Column (OWC) station in the island of Pico.

Geothermal energy is now the greatest source of renewable energy in the Azores. The two geothermal plants operating on São Miguel accounted, in 2011, for 22.1 % of the total electricity production on the archipelago and for 41.6% of the electricity produce in São Miguel Island, the largest of Azorean Islands, and almost 50% of total renuable in this island

Across these nine small energy markets, in 2011, renewable energy sources in the Azores Autonomous Region accounted for 30% of the total energy mix, 22.1% from geothermal sources and 7.9% from wind and hydro-energy.

More investments are planned as the goal of the regional authorities is to increase the contribution of renewable energies in the production of electricity to 50% in 2013 and 75% in 2018

The Azores is involved in other projects in electricity storage and in the construction of systems nearing 100% renewability, and we should also highlight the collaboration with a German company that studies the integration of Aeolian and photovoltaic energy with last generation batteries.

The Azores also contributes to the MIT-Portugal **Green Islands** project dealing with sustainable islands. The "**Green Islands**" MIT (Massachusetts Institute of Technology) project involves the Azores University, the Azores Regional Government, the Azores electricity company (EDA), the Foundation for Science and Technology, several other universities and key-partners. It aims to extensively reduce the use of fossil fuels in the

Azores, through the development of new and enlarged renewable energy and technology resources.

Eighteen research teams from the Azores University will work with their MIT Portugal counterparts to document energy consumption patterns (with special emphasis on the energy efficiency of residential and commercial buildings) as well as studying transport and mobility of demand in the islands. Pilot projects will also be developed for a group of renewable projects in the archipelago, including social energy, wind energy, sea energy, geothermal and biofuels.

The research projects will provide scenarios for demonstration projects – for instance, the development of electric car fleets.

On April 2011 the Azores joined the project entitled 'Pact of Islands', aimed at developing local action plans for renewable energy and establishing a directory of projects that can be financed in order to achieve or exceed the European target of reducing CO2 emissions by at least 20% by 2020.

So, with these examples, I would like to underline that the investment in renewable energies and energy efficiency can transform these regions in areas of excellence, becoming pilot-projects within the EU and international organizations. But we should stress that these efforts should be duly recognized by the EU and other institutions with the reinforcement of funds that are destined for R&D and basic investments.

And at the same time that we learn about this potential, we consider necessary to bear in mind that exploring new technologies and

establishing excellence centers demand greater investments if we are to use them in a rational and safe manner.

To resume, regions, and namely those with specific features such as islands and outermost regions, need greater recognition of their role on climate change issues, stronger networking and improved access d international finance instruments.

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