


Letter to the Editor of the Cuban Journal of Meteorology VII Congress on Climate Change



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Within the XII Convention on Environment and Development framework, the VII Congress on Climate Change took place, with the aim of presenting the research results on the latest high-level scientific findings, in terms of the phenomenon explanation, the skills / education integration and awareness.

Besides, to share experiences on response strategies to climate change (adaptation - mitigation); showing examples of applied actions that promote mitigation-adaptation and also generating a dialogue about the experiences of national and international scientists, decision-makers and citizens related to the impacts of climate change and its consequences for socio-economic development.

The congress was held from June 5 to 9, 2021, 91 oral presentations and 22 posters were presented virtually, on the following topics:

- Climate variability. Modulating factors. Impacts
- Climate modeling
- Inventory of greenhouse gases. Emission factors
- Mitigation of climate change
- Impacts and adaptation to climate change
- Cross-cutting themes (technology transfer, communication, education).

The participants were specialists and researchers from Brazil, Colombia, Mexico, Ecuador, the United States of America, Australia and Argentina participated, as well as Cuban specialists.

Two keynote conferences were presented: "Climate change and global socioeconomic deterioration in times of pandemic", by Dr. Ramón Pichs Madruga and "New viruses colonize man in the face of climatic and anthropic pressures on ecosystems. Early Warning

System for the circulation of the SARS-CoV-2 virus", by Dr. Paulo L. Ortiz Bultó.

On his keynote speech on Climate change and global socioeconomic deterioration in times of pandemic, Dr. Ramón Pichs Madruga (Cuba) indicated that CO₂ emissions associated with the energy sector were reduced by 6% in 2020, with an unprecedented drop since the WWII. Half of this reduction was due to the drastic decline in road transport and aviation. Tourism fell 74% in that year. However, since April 2020, emissions have been recovering and by the end of the year they exceeded the levels of December 2019. Despite the reduction in emissions during the past year, greenhouse gas concentrations continued to grow; climate change was reinforced and 2020 was one of the three warmest years, for all historical records. At the same time, the combination of the pandemic and the reinforcement of global warming is hitting the poorest and most vulnerable countries and communities above all, also affected by the restriction of financial resources and few technological options to face these global challenges. They also have growing external debts, which reinforces their limited response capacities. Therefore, it is necessary to strengthen international cooperation with these countries, including contributions to the necessary flows of financial resources and technology.

Two special panels were developed: "Signs of a changing climate in the health of the elderly" and "Coastal resilience", the latter had the participation of specialists from Cuba and the United States, through specific examples of project results and plans in both countries: Living Mangrove and studies on coral reefs in Cuba; Coastal Master Plan and natural infrastructures in Louisiana, United States.

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The Cuban speakers spoke about the conservation of mangrove ecosystems through restoration and rehabilitation techniques, hydrological recovery and field monitoring as bases to guarantee the resilience of the selected areas, which must also be ensured once the financed projects initial actions are concluded. Thus, the economic valuation of ecosystem goods and services is required; the training and provision of tools and supplies for the main actors in these areas; the implementation of economic incentives for residents; as well as their training regarding the sustainable use and conservation of biodiversity or participation in voluntary fire brigades. All these actions facilitated a change in thinking about coastal management, with an increase in the quality of life of its populations.

On the other hand, the North American speakers addressed resilience from the use of adaptive management and the broad evaluation of the system and its monitoring, together with the weighting of natural values and the needs of the communities. They presented experiences such as coastal resilience planning; the commissioning of actions to the governments at their respective levels, the politicians and the communities, with the construction of consensus with clear expectations; a prominent role of scientific knowledge and the consideration of uncertainties; the use of people-oriented approaches and the identification of the funds necessary for their implementation.

In the topics of Greenhouse Gas Inventory (GHG), Climate Variability and Impacts, extensive exchanges were established between speakers and participants. There was a debate on GHG emissions in sectors such

as industry, livestock and airport activity in Cuba. Results related to climate modeling and its contribution to studies of mean sea level rise and marine intrusion were presented. The need for interrelation with the knowledge provided by science and research institutions on the subject was highlighted. In addition, the impact and adaptation to climate change were evaluated, as well as the measures to reduce vulnerability in the coastal zone and in mountain topoclimates. The importance of achieving the inclusion of various actors (government, social, community) in the implementation of these measures in vulnerable areas was highlighted, given the social impact they have on coastal communities, mainly when it comes to achieving their relocation in areas more secure. The training and environmental education actions to facilitate the taking of opportune measures and acceptance by the population involved were positively valued.

During the congress there was a session dedicated to the national results for the advancement of the Cuban State Program to Confront Climate Change: The Life Task.

The congress was held in virtual mode on the Click-Meeting platform. In addition, WhatsApp was used for the exchange between the speakers. It had an impact on social networks such as:

- On Facebook: 921 likes, 43 comments and 293 shares.
- On Twitter: 23 publications, 476 likes and 291 retweeted.

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