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SPACE TECHNOLOGY INITIATIVE FOR SAVEGUARD OF ECOLOGICAL ZONES IN XOCHIMILCO

Abstract

Nowadays the use of space technology worldwide is undeniable from the basics such as communication using satellite networks to things as spatialized as remote image detection to say only a few applications. However, some of these technologies have not yet been implemented by some governments in Latin America. However, developing countries, such as the Latin American and Caribbean Group (GRULAC), continue without use such programs to allow remote monitoring for the use and protection of their inhabitants. Mexico, it has large ecological zones considered World Cultural Heritage by UNESCO among which Xochimilco stand out, being one of some of the most exotic and beautiful places of the country besides being the cradle of several unique spaces in the earth like the Axolotl.

However, overcrowding in Mexico City has put at risk some of the protected areas of Xochimilco. Over the past 30 years, Mexico City's population growth has been disproportionate, causing a general collapse throughout the city, resulting in a shortage of supplies and high rates of pollution. 2016 was one of the years with more pollution in the air of Mexico City generating a great concern to its almost 9 million inhabitants in the absence of actions the collapse is imminent.

If the susceptibility of these events could be identified in the early stages of an integrated planning and development study, steps could be taken to reduce the social and economic impacts of potential events affecting the population. Therefore, the Axolotl X initiative, made up of the Xochimilco government directive and GRULAC members, proposes the use of a Nanosatellite to the continuous monitoring of protected areas of Xochimilco as well as the prevention of demographic, geological and hydrological phenomena.

Then the paper will provide a short background of the problems that abound in the largest cities of Latin America in which they emphasize the Mexico City and the technological development in relation to the space exploration impacts in the society. The document will then provide a brief overview of what is being done at the national and international levels. This work will analyze the measures adopted, the international cooperation and development of nanosatellites and possible political solutions for their regulation. Finally, there will be some possible policy suggestions as well as pilot programs for the expansion of this program to different cities in Latin America.