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Contribution of Space Activities to Solving Global Societal Issues (2)

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SOCIAL APPLICATIONS OF SPACE TECHNOLOGY IN TABASCO, MÉXICO.

Abstract

Mexico is a country of divergences. The Human Development Index 2014 (HDI) for Mexico ranges from 0.830 in Mexico City, to 0.667 in the State of Chiapas. In Mexico 22.2

Space is a facilitator that can provide very important support and information from remote sensing and communications satellites, among others. Space technology can provide an option to massively improve the quality of life: In health, through Tele-Health, Tele epidemiology and Geomedicine; in education through Tele-Education programs, in civil protection through the deployment of Disaster Prevention Models using software and hardware tools to detect meteorological, geological, ecological-chemical threats, health risks, fire, and floods, among others.

As a joint project between the Mexican Space Agency and the Goverment of the State of Tabasco, a model has been developed to enhance health, education and civil protection in Tabasco using space tools. This model includes: 1.-Free software for comparing patterns of images from satellites for remote sensing

of floods, fires, water pollution, and urban and rural population movement. 2.-A Tele epidemiology project using satellite images for detection of areas presenting health warnings, specifically of vector transmitted diseases by vector such as Dengue Fever, Chikungunya virus, Zika virus, Chagas disease and Leishmania. Distance diagnostics by means of mobile digital electrocardiograph and telemedicine platforms. 3.-Medical education at distance to rural populations, to do actions such as prevention, timely diagnosis and treatment to deal with specific vector borne diseases. 4.-Use of Geographic Information Systems (GIS) to analyze information collected and represent it in various thematic maps and other forms of spatial representation. 5.-Development of an EKG device to diagnose cardiac alterations such as Chagas with capability of tele-health. 6.-Adaptation and integration the epidemiology information using the Health Information Systems (Open Source) for Statistical analysis and geo-referenced areas. 7.-Integration of a large community to provide strong support to the region. The community includes medical monitoring and evaluation specialists and experts in information technology.