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International cooperation in using space for sustainable development: Towards a 'Space2030' agenda (1)

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AFFORDABLE ACHIEVABLE SPACE SOLUTION PROPOSAL TO THE REGIONAL CONCERNS
ABOUT SUSTAINABLE DEVELOPMENT GOALS

Abstract

This paper is about a LEO Cubesat Constellation which will result in supporting some of Sustainable Development Goals. This constellation is made up of 8 to 12 multi-mission 1U Cubesats to provide a low-cost simple system, both affordable and achievable in the Middle East region. Each Cubesat has two payloads, a Low Resolution Camera to monitor Surface Waters and a VHF band Half-Duplex Communication Module, whose main purpose is to monitor TEC of the Ionosphere in order to predict high magnitude Earthquakes. The data from these payloads will be used with the support of ground data on servers which make more useful information available. The main content of the proposal is to run a project for this constellation in Middle East, considering each country to manufacture a Cubesat and create the required infrastructure for receiving data from satellite and also the servers. This makes the community to support SDGs 8 and 9 directly and some others indirectly. Besides, Constellation Data will be used to access Clean Water for all (as in SDG 6) and minimize the Damages through Natural Disasters to improve Life on Land (as in SDG 15) and provide Right Decisions on Climate Changes (as in SDG 13). These are only some of such system applications which will end in direct serving of SDGs, and a targeted implementation of this project could make it more compatible with Space2030. This project can be an international movement for Peace in the region and start of a long term collaboration and cooperation for humanity, ending to Development of all Countries, with no border and no political issue. This can be the first step of a large program, managed and supported by UNCOPUOS to increase the Space Application in Human Life Improvement within Space Emerging Countries of the ME Region, along Technology Development and Sharing Resources from Experts to Infrastructures, from Data to Services and from Now to the Bright Future.