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Contribution of Moon Village to Solving Global Societal Issues (2)

Author: Ms. Sahba El-Shawa
European Space Agency (ESA), Jordan, sahba.elshawa@community.isunet.edu

Ms. Merna Alzurikat
Jordan, merna_zrekat@yahoo.com

Ms. Jude Alsaadi
Germany, judealsaadi@gmail.com

Ms. Ghayda Al sona
Jordan, ghydasunna@gmail.com

Ms. Zaina Abu Sha'ar
Jordan, zaina_abu_shaar@hotmail.com

VALLEY OF THE MOON: SOCIETAL BENEFITS OF LUNAR EXPLORATION IN JORDAN

Abstract

The Hashemite Kingdom of Jordan is known as a country of peace in an ever so turbulent region. This political stability has aided in the country's notable rapid growth these past few years, despite its limited natural and financial resources. Jordan is currently taking the lead in multiple sectors in the region, such as Education, Medicine, Information and Communications Technology, and more. The advancement of these industries has encouraged the progress and development of the Jordanian community as well. Similarly, space can contribute societal benefits in an emerging space country like Jordan. Under the Moon Village – Participation of Emerging Space Countries (MV-PESC) program, a roadmap for Jordan's contribution to lunar exploration and the Jordan Space Research Initiative (JSRI) were created. This 20-year roadmap focuses on establishing an analog research and development facility for the Moon and Mars in the Jordanian desert of Wadi Rum, locally known as the Valley of the Moon. This roadmap aims to support the following building blocks: Water Resource Management, Renewable Energy, In-situ Resource Utilization (ISRU) and Robotics, Dust Mitigation, Agriculture, Smart City Infrastructure, and Women's Health. These building blocks will advance research required for the Moon Village, while simultaneously contributing to sustainable development in Jordan. Due to the national importance which Wadi Rum holds, for being a tourist attraction site, a naturally protected area, and a homeland for the local nomadic tribes (The Bedouins), community engagement is an important aspect of this roadmap. Finding an appropriate way of approaching the local community in Wadi Rum, the general public in Jordan, local authorities and the government, is crucial to its success. This paper investigates how the implementation of the Moon Village PESC project in Jordan, as embodied by JSRI, will contribute to solving some of its most pressing societal and economic issues, such as water scarcity, while highlighting how the incorporation of space technology and research will play a major role in advancing Jordan's existing research goals and initiatives. By linking the roadmap developed by JSRI to the preliminary Roadmap for Space and Sustainable Development (RSSD), which was introduced in a previous IAC paper titled "Jordan and the United Nations Space2030 Agenda: A Roadmap for Space and Sustainable Development" (2020), this paper also identifies ways in which the implementation of the Moon Village in Jordan will contribute to the achievement of the objectives of the UN Space2030 Agenda and the Sustainable Development Goals.