

14th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FUTURE (D4)
Contribution of Space Activities to Solving Global Societal Issues (2)

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THE PLANETARY BELT, A SYMBIOTIC ARTIFICIAL PLANET AT GEOSTATIONARY ORBIT
CONNECTED TO EARTH BY A SPACE ELEVATOR SYSTEM TO FACE GLOBAL CHALLENGES

Abstract

Up to now space activities and technologies have interested an infinitesimal part of our population never facing or trying to solve any of the major problems facing our society. We can list them briefly using recent UN declarations but we can sum them up with a single word : Poverty. . We want to know if with a massive utilization of space technologies we could successfully face current global challenges. Transfer in space the excess population of our planet , improving the economic conditions , eliminating poverty, creating jobs, and allow further growth without damaging the Earth or its ecosystem allowing the opportunity to heal from past excesses while opening up the endless resources and wealth that can be available in space development. Can space be the answer or at least one of them? With a population growth estimated at approximately 80M people per year, we would need much bigger settlements , than those planned since O'Neill and a massive new transportation system if we plan to use space as the future home for such population . We will need planet size space megastructures to house and support such growth together with the right economical conditions for their population to produce wealth and live in acceptable ecosystems. The proposed contribution would be a space megastructure that would contain the excess population of our planet ,allowing their economic independence while supplying all needed power in a non polluting way as one of the main business models. Such megastructure, based on smaller modules or pods, created with space settlement technology , would form a ringlike artificial planet in geostationary orbit around our planet and, being connected by a system of space elevators , would have permanent and umbilical cord like connection allowing symbiotic relationship between them. In this paper we want to explore the modular construction system, their mass production and resource requirements including main technological and economical goals to build such artificial planet. Such solution would create billion of jobs worldwide, and would boost the economy from the existing trillion to a quadrillion level, producing wealth and business opportunities while opening up the space frontier in a massive scale. Let's space be the answer