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Is Space R&D Truly Fostering A Better World For Our Future? (2)

Author: Dr. Sias Mostert
Space Commercial Services Holdings (Pty) Ltd, South Africa, sias@scs-space.com

SPACE TECHNOLOGY WITH SYSTEMS THEORY – BENEFIT TO SOCIETY

Abstract

The combination of Space Technology with Systems Theory on a continental wide scale, provides the opportunity to address the Sustainable Development Goals in a way that mobilises resources on a local, regional and international scale. However, this expected impact can only be achieved if there is sufficient attention given to the short, medium and long term processes that all operate in parallel to each other. No one process can be ignored without putting the rest of all the interventions at risk.

The authors of this paper presents a strategy with which to use the impact of space to achieve the Sustainable Development Goals including the Migration Goal in the continent of Africa, as an example. One can easily consider the Migration SDG as a synonym for the Agenda2063 of the African Union, ‘The Africa that we want.’

Development has taken many forms over the past decades. Examples of Aid, infrastructure investment, world bank financing, abounds. However, one cannot help to notice books with titles such as ‘Dead Aid’, The ‘Economic Hitman’ and various others in similar vain.

In the space domain, development is underpinned by projects that are initiated outside the continent, for which local technical partners are sought. On completion of the project, the self-interest of both collaborating parties let them move towards the next project, leaving whatever legacy established at the mercy of no interest. Thus the overlapping of self-interest by all parties has not yet lead to wide spread concrete success stories.

The authors will present a different approach, based on a cybernetic world view, to address not only the question of development, but a framework of self-reliance and resilience that will enable countries, organisations and communities in a continent to provide a foundation for growth.

The paper will commence by a review of reflections on the impact of the various forms of development to date. The next section will introduce three systems thinking tools and the integration of them to establish a foundation for growth. The following section will take a number of the SDGs and relate the impact of space technology to them, in the application of the integrated toolset. The final section will describe a theory of action that utilises the toolset with the benefit of space technology in the interest of creating and supporting development.