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CAPABILITIES OF EARTH OBSERVATION SATELLITES– POTENTIAL FOR HUMAN SCALE  
DEVELOPMENT OR ABUSE

**Abstract**

The paper will reflect on the technical capabilities of remote sensing satellites of Earth Observation satellites, actual and potentially, in terms of spatial, spectral, and temporal resolution which may deliver data to be abused.

The paper will provide a human capacity framework against which the utilisation and impact of remote sensing satellites will be evaluated in order to show the technical capabilities of remote sensing satellites in the context of a value system.

The paper will dwell on what can be detected, recognised and identified through remote sensing. A number of examples will provide an understanding of what can be detected from space.

The driving force for many decades of remote sensing satellites has been ground resolution. However technology advances and miniturisation of electronics and detectors allow multiple spectral bands to be detected as well as far more frequent coverage as a result of lower cost per satellite constellations such as Skybox, Planet-Labs and GSOUC. Radar enabled satellites provide all weather and day/night coverage.

This paper will review what can be detected, recognised and identified from space and then reflect on each aspect of the human scale development and the impact of remote sensing on it to conclude with input to policy guidelines for regulating remote sensing for the benefit of mankind.