

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Interactive Presentations (IP)

Author: Mr. Rene Horacio Michel Valencia
Bolivia

COLORING EARTH

Abstract

Every year some nation has a new legislation that benefits the environment, sadly every year that legislation is bypassed by the stakeholders for economical or political reasons.

Space technologies provide a substantial contribution through a broader perspective on environment monitoring, giving the ability to monitor large variables with high accuracy. However, all the data and measurements related to climate and natural resources that are being gathered daily by a full range of missions, both private and governmental, are being only partially used by (only) some stakeholders.

The main problem found on this subject is that due to the variety of formats and the amount of raw, produced and processed information, these resources do not reach communities, decision makers and general public. Also the results of different analysis are not accessible to the general public. Plain information means nothing, because it needs to be analyzed and the results clearly presented, so it can actually help people to make decisions, whether it is as authority, as activist or as general public.

The project aims to close the gap between the information gathered and the general public, in three steps. (1) Understanding how aware the general public is about the potentialities of the Satellite Images in order to tackle climate change. (2) Designing the backend of an interface (web app and mobile app) that gathers data from remote sensing satellites, analyzes the data and present the result in the interface in several ways, making this data ready to be used in academic enquires, day to day fact-checking, city planning, etc.. (3) Present the result in the interface in various way, making this data ready to be used in academics enquires, day to day facts, city planning, etc.

Because of the important role of vegetation, cities, water bodies and energy generation/efficiency to the climate dynamics, two types of algorithms will be developed (1) to find specific vegetation, minerals and water bodies. (2) to find outstanding location for Renewables Energies by analyzing solar radiation and atmospheric maps. The final stage will present a friendly interface that will gather information generating custom analysis.

The final stage will focus on the general public, seeking to create a more aware generation that has a global perspective that only Space Technologies can provide.