

# SPACE FOR PEACE

SPACE TECHNOLOGIES AS A MEAN TO ACHIEVE THE SUSTAINABLE  
DEVELOPMENT GOALS FOR A PEACEFUL COUNTRY




**TODOS POR UN  
NUEVO PAÍS**  
PAZ EQUIDAD EDUCACIÓN



**CANCILLERÍA**



**A vision of peace  
for space issues**

A group of people, mostly men in business attire, are seated around a large conference table in a meeting room. The image is overlaid with a semi-transparent teal filter. The text is centered over the image.

**“The main issue is to understand peace as an opportunity, as a great lever for change and do what we have not been able to do in 50 years of war.**

**The energy of peace is required to set in motion the transformation of the conditions that have kept the conflict alive”**

**Sergio Jaramillo  
High Commissioner for Peace**



**A stable and lasting peace**  
an ongoing challenge for Colombia

# “Final agreement to end the armed conflict and build a stable and lasting peace”

## Point 1 agreement on “Comprehensive Rural Reform – CRR”

Point 2 agreement on “Political Participation: A democratic opportunity to build peace”

Point 3 agreement on “Bilateral and Definitive Ceasefire and Cessation of Hostilities and Laying down of Arms”

Point 4 agreement on “Solution to the Illicit Drugs Problem”

Point 5 agreement on “Victims”

Point 6 agreement on “Implementation and verification mechanisms”

# Point 1 agreement on “Comprehensive Rural Reform – CRR

## Structural transformation

That is to say, the transformation of the rural reality, through fairness, equality and democracy. A genuine structural transformation of the countryside requires the adoption of measures to promote appropriate use of the land in accordance with its suitable purposes.

## Armed Conflict Objective Causes

Unresolved issue of land ownership and the concentration

Exclusion of the rural population

Underdevelopment of rural communities

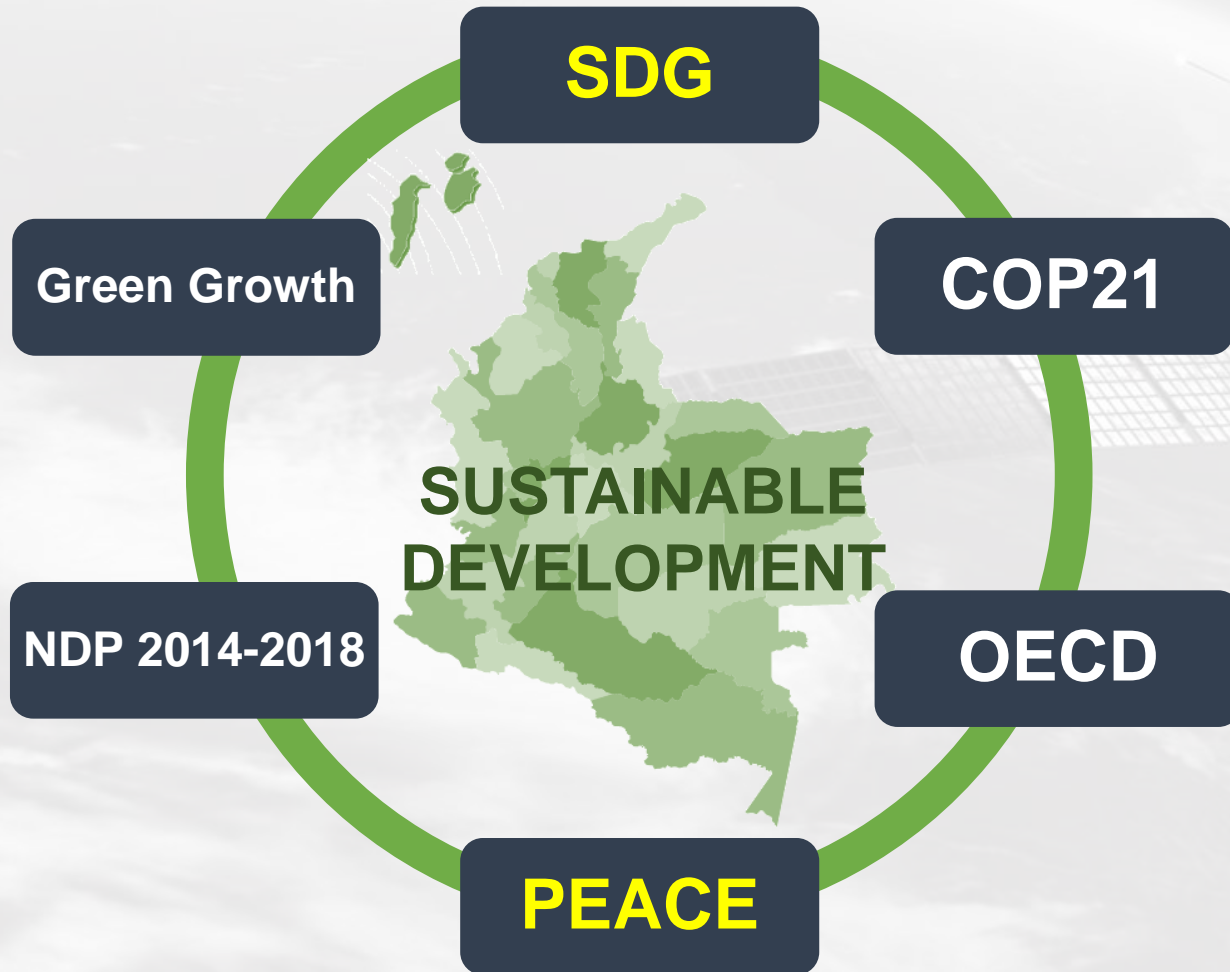


**Space technology as a driver for  
SDGs compliance**

# There can be no sustainable development without peace and no peace without sustainable development







The **17 Goals and 169 Targets of the SDGs** are aligned with the national agendas and include actions to reach 146 targets (86%)

**Peace Accord- 68 targets**

**OECD - 87 targets**

**COP 21 - 18 targets**

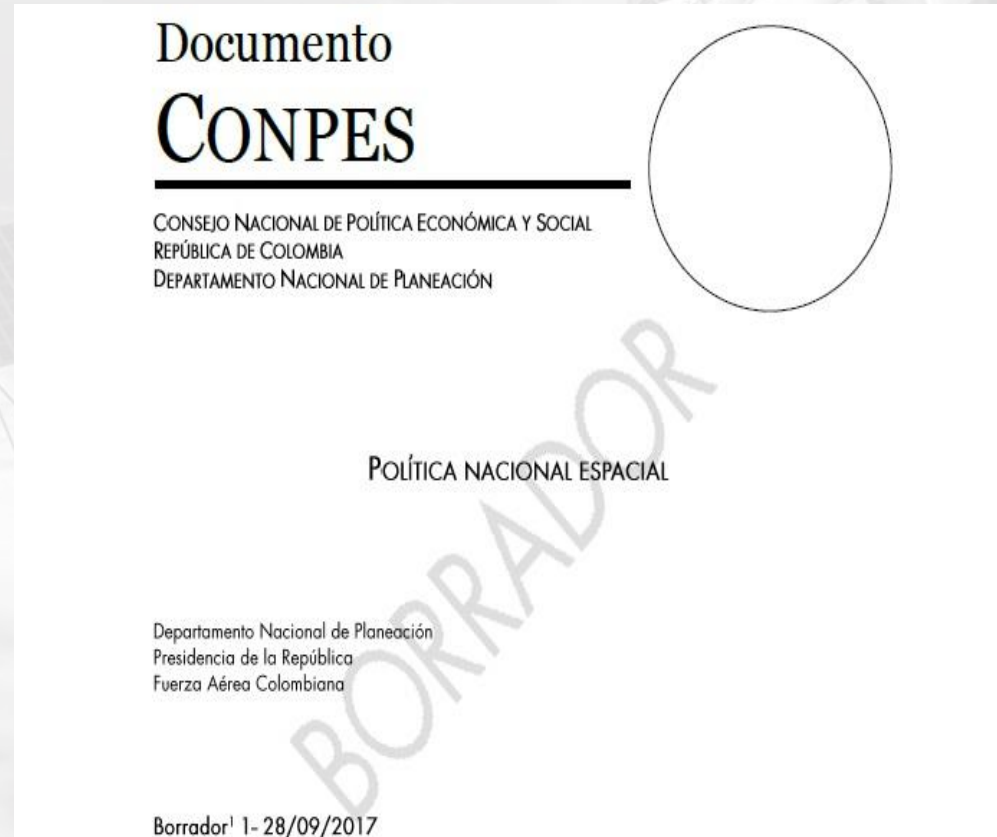
**GG - 86 targets**

**NDP- 92 targets**



**Framework policy for spatial  
development**  
explaining National Space Policy CONPES

# Framework document for National Space Policy



# Objective

fixing previous market failures and government inadequacies to achieve greater and better exploitation of the benefits of the spatial ecosystem and, in this way, to leverage Colombia's national interest aligned to the Agenda 2030 as a sustainable way to seize the new peace context.

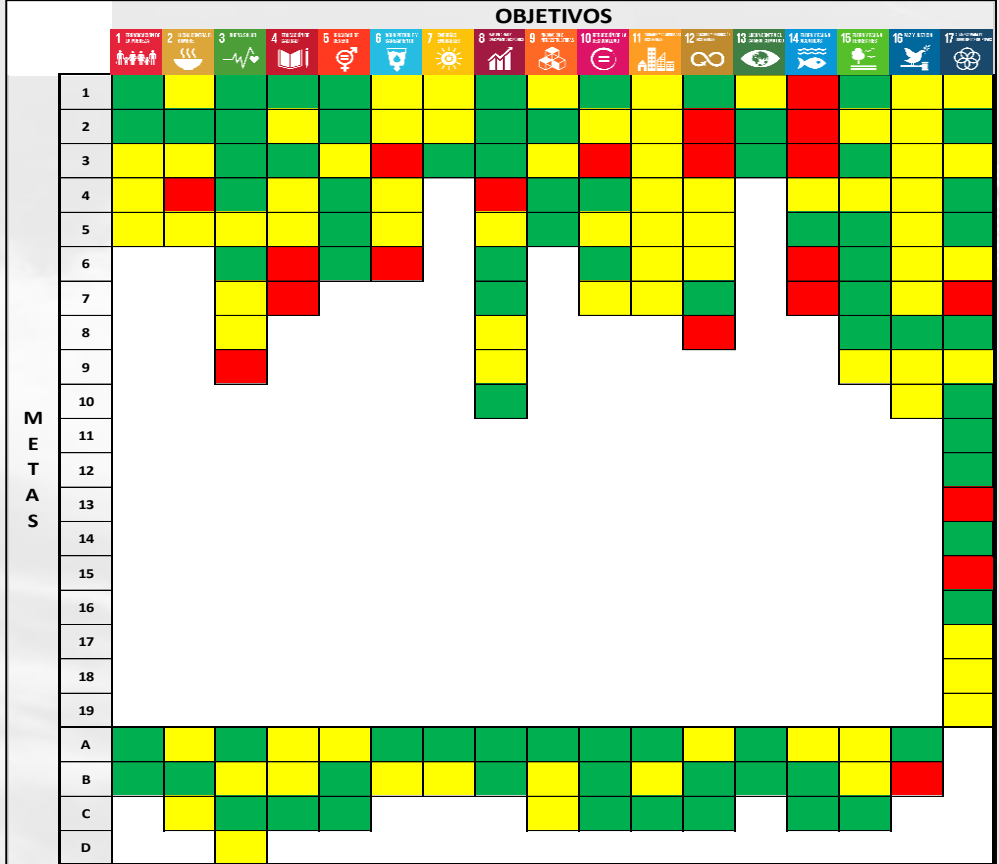
# Strategie

- **S** Create the conditions that guarantee a long-term, binding and strategic vision of the space sector.
- Improve the governance framework of the space sector for its development.
- Generate conditions that facilitate overcoming entry barriers to the space sector

A satellite is shown in space, orbiting Earth. The satellite has a cylindrical body with various instruments and a large solar panel array extending from it. The Earth's surface is visible in the background, showing cloud patterns. The entire scene is rendered in a monochromatic blue color scheme.

# Earth Observation Data Applied

# Assessment on Colombia's information availability for global SDG indicators



■ Available Information: **54%**  
■ Partial Information, need of improvements: **30%**  
■ Not data or not methodology : **16%**

Source: DANE

# Applying Earth Observation Data

- ✓ 6.6.1. Change in the extent of water-related ecosystems over time
- ✓ **11.3.1 Ratio of land consumption rate to population growth rate**
- ✓ 11.7.1. Average share of the built-up area of cities that is open space for public use for all, by age , sex and persons with disabilities
- ✓ 15.1.1. Forest area as a percentage of total land area
- ✓ 15.2.1. Progress towards sustainable forest management
- ✓ 15.3.1. Proportion of land that is degraded over total land area
- ✓ 15.4.2. Mountain Green Cover Index

# Indicator 11.3.1

$$\text{Indicator 11.3.1} = \frac{\text{Urban land consumption rate}}{\text{Population growth rate}}$$

If the  
Indicator  
is greater  
than 1

Urban land  
consumption is  
higher in relation  
to population  
growth

If the  
Indicator  
is less  
than 1

Population grows  
faster in relation to  
land use

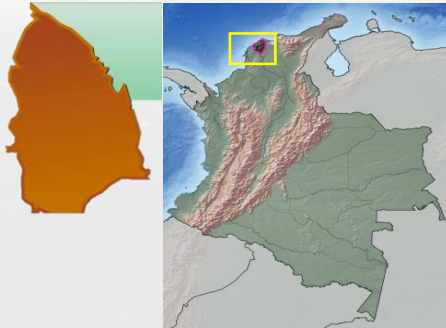
#### Sources

Landsat Images  
DANE population projections

#### Software

Google Earth Engine  
ArcGIS  
R  
Erdas





**2015**



Advice from experts

**2016**



**2017**

Calculation for  
151 Urban  
Areas from the  
Colombian  
Urban System  
- DNP



Google Earth Engine



**¡GRACIAS!**

**United Nations/United Arab Emirates High Level Forum**  
**Space as a driver for socio-economic sustainable development**  
**November 2017**

