

# UN/Austria Symposium 2022 on Space for Climate Action

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experiences and best practices in mitigating and adapting to climate change and supporting sustainability on Earth



UNITED NATIONS  
Office for Outer Space Affairs

13 September 2022

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# Facing the climate emergency

DROUGHT ESTIMATED TO  
DISPLACE 700 MILLION  
PEOPLE BY 2030



DROUGHTS

MEDIUM- TO LARGE-SCALE  
DISASTERS WILL INCREASE  
40% FROM 2015 TO 2030

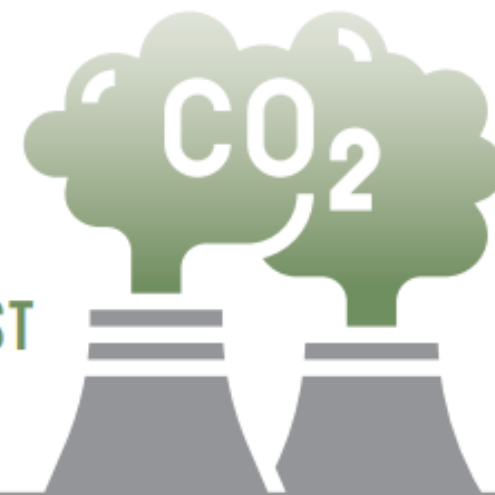


DISASTERS

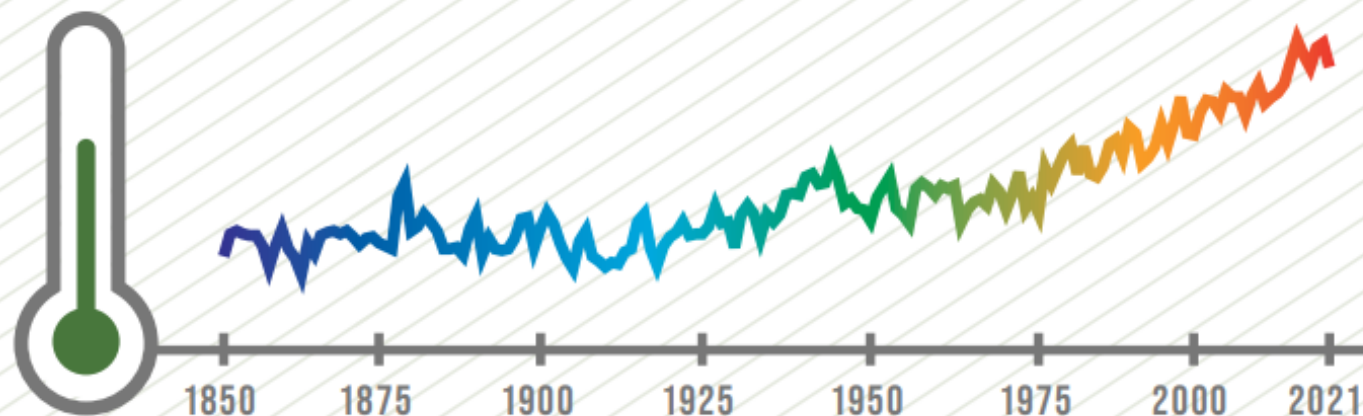
ENERGY-RELATED  
CO<sub>2</sub> EMISSIONS  
INCREASED

6% IN 2021

REACHING HIGHEST  
LEVEL **EVER**



RIISING GLOBAL TEMPERATURES  
CONTINUE UNABATED, LEADING  
TO **MORE EXTREME WEATHER**



# Glasgow Climate Pact

In 2021, states convened for **COP 26** and adopted **Glasgow Climate pact**, aspiring to make needed climate action and targeted support in consequent decisive years until the end of current decade.



*“We did not achieve these goals at this conference. But we have some building blocks for progress.” – António Guterres*

**Commitment.** The agreed action include:

- ❑ Increasing efforts to build resilience to climate change
- ❑ Constraining greenhouse gas emissions
- ❑ Provision of the necessary finance for both

**Challenges.** Goals that were not achieved fully:

- ❑ Phasing out coal
- ❑ A price on carbon
- ❑ Building resilience of vulnerable communities against the climate change impact
- ❑ \$100 billion climate finance commitment to support developing countries



# The power of space assets

Space technologies such as **Earth observing satellites** can provide significant contributions to more than half of the **54 Essential Climate Variables**

## Climate change mitigation.

Data from space can



## Climate adaptation & resilience.

Space technologies can





# Office for Outer Space Affairs

## Our Work



UNOOSA was initially created as a small expert unit within the UN Secretariat. Over the years it has evolved to the **only entity** in the UN system **dedicated to Space Affairs**. Today we work to **advance int. cooperation** in the peaceful uses of outer space & **bring space benefits to everyone**.

- ❑ Secretariat to COPUOS
- ❑ Works with MS, IGOs, NGOs (space-related)
- ❑ Programme on Space Applications
- ❑ UN-wide coordination - UN-Space
- ❑ UN Register of Space Objects
- ❑ UN-SPIDER – with Offices in Austria, China & Germany
- ❑ International Committee on Global Navigation Satellite Systems (ICG)
- ❑ Space Mission Planning Advisory Group (SMPAG)

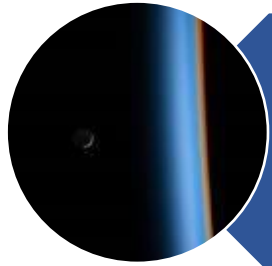


[www.unoosa.org](http://www.unoosa.org)

[www.un-spider.org](http://www.un-spider.org)



# UNOOSA: Supporting Member States



**CAPACITY BUILDER:** UNOOSA provides access to cutting edge space-data and information and builds capacity to use such data to accelerate sustainable development



**CONVENER:** UNOOSA facilitates international cooperation among UN Member States to develop new space policy



**GATEWAY:** UNOOSA - the sole UN agency dedicated to space affairs - coordinates UN activities using space-related technology to support sustainable development



# UNOOSA Work on Climate Action

The **full potential** of space technologies in addressing climate change is **not currently being realized**.

**UNOOSA** identified areas in which it **can help enable** global climate action by using space assets.



Promote, strengthen and deliver targeted **capacity-building** and technical advisory activities, facilitate multi-stakeholder **collaboration**, and promote efforts to **encourage the use of space** for climate action from local to national to international levels.

**SPACE  
4SDGS**



Through its activities, UNOOSA will support SDG 13: Climate action, and as addressing this global challenge influences virtually all human activities, the initiative has direct or indirect implications on other SDGs.



# Climate Action

## Where can UNOOSA get involved

UNOOSA aims to facilitate **international cooperation** and the wider use of **space-based technologies** to implement **climate change mitigation, adaptation, and resilience initiatives**. This objective potentially can be achieved by



### Promoting the use of space technologies for climate

Promoting the use and raising awareness of technical and policy-oriented strategies for using space technologies to meet climate objectives through Technical Advisory Missions focusing on climate science, monitoring, mitigation, adaptation, and resilience efforts.



### Capacity-building

Facilitating capacity-building in the design, monitoring, evaluation, and implementation of projects that use space-based technologies to address climate change.



### Technical Assistance and Cooperation

Delivering capacity development through funding and delivery mechanisms including technical advisory missions, institutional strengthening missions, and program support as well as policy developments. Inclusion of space applications in development funding and call applications (e.g., Green Climate Funds)



# Climate Action

## Where can UNOOSA get involved



### **Coordinating international collaboration**

Coordinating collaboration between United Nations Organizations, government agencies, academic organizations to develop and implement national and regional climate adaptation and mitigation projects



### **Supporting the Space Climate Observatory**

Actively supporting and contributing to the International Space Climate Observatory (SCO), which will provide a gateway to space-based information and tools to support climate adaptation and mitigation projects and will promote open access to the activities of the SCO for all.



### **Private Sector Participation**

*'Climate Action: A Race We Can Win. A Race We Must Win.'* On 23 September 2019, UN Secretary-General António Guterres hosted the UN Climate Action Summit, calling on Heads of State and other leaders, including from the private sector, to come to New York with concrete, scalable plans towards climate action.



# Where do we stand today?

**UNOOSA and the United Kingdom** jointly addressed information gap for activities in using space for climate action. The report will be released later this autumn.

**Through this report, parties strive to**

1. Address the information gap
2. Build synergies
3. Facilitate coherence
4. Contribute to avoiding duplication of existing efforts

**The focus of collaborative efforts:**

A review of existing climate action using space technologies at the international and regional levels, in the UN system, for non-UN groups, partnerships, organizations and other relevant entities.



Generously **sponsored** by the  
**government of the United Kingdom.**





# Strategic Mapping Exercise

The established **system of key intergovernmental coordination** bodies that use space assets for climate action is **lacking** a comparable solid **coordination and collaboration structure to ensure** the development of the **following necessities**:

- ❑ **Clear responsibilities**, alignment of activities as well as promotion of voluntary **cooperation**
- ❑ **Compatibility, interoperability and transparency**, and further **promotion** of utilization of space technology in climate action and services
- ❑ Exchange of **expertise and experience**
- ❑ **Capacity-building**





# Space4Climate Action Website

As part of the **mandate to support Climate Action**, UNOOSA is developing a website to address the need in **coordination and capacity-building** for climate action.



## Objectives:

- ❑ To **raise awareness** and to **promote** the use of space technologies and applications to meet climate objectives.
- ❑ To serve as a **capacity-building resource** for organizations, industry, academia, policymakers, experts, and others:
  - ❑ To inform their own strategy development
  - ❑ To research and gain a more complete understanding of the current coordination efforts.

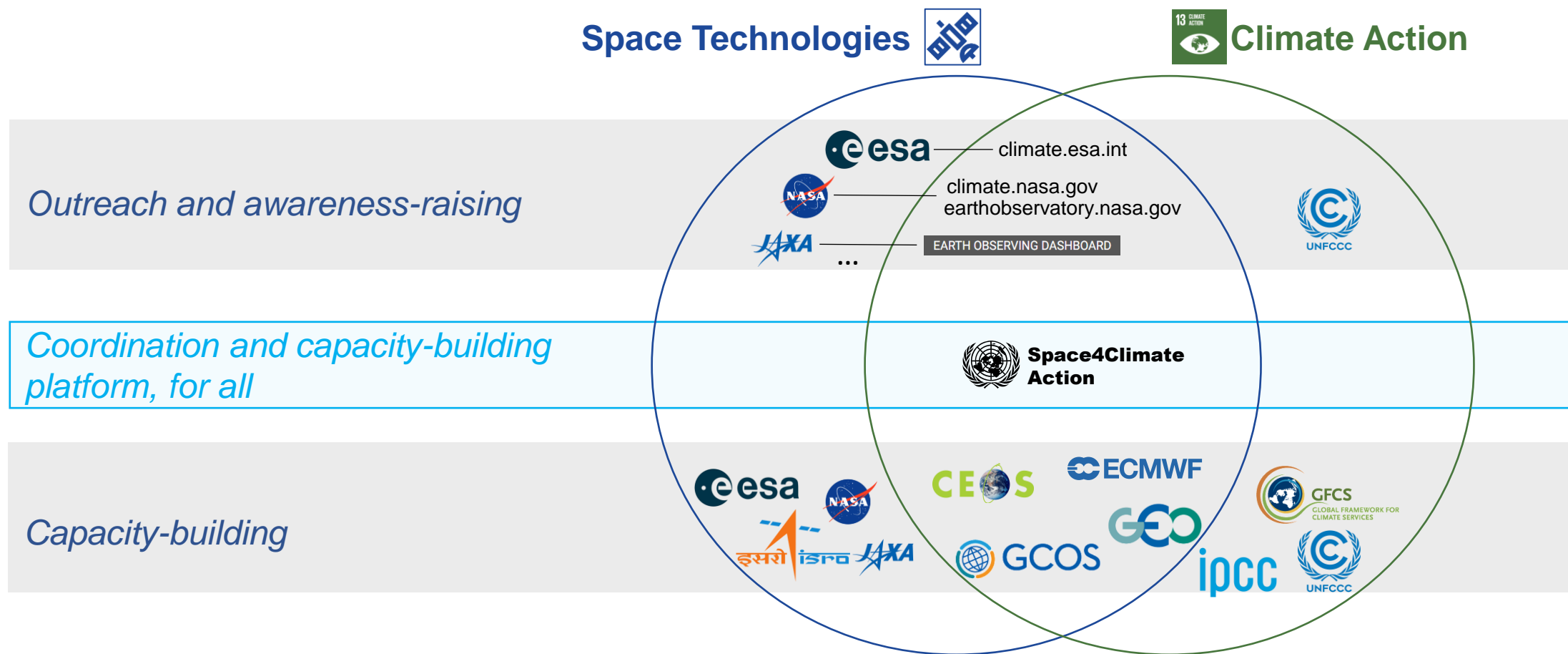
The development is generously **sponsored**  
by the **government of Austria.**





# Space4Climate Action Website

The benchmark analysis showed that there is a gap in the current system of Climate Action internet-based resources & services. The Space4Climate Action fill this gap.



Non exhaustive analysis, limited to main international organizations and state actors.



# Space4Climate Action Website

## Content & Phases

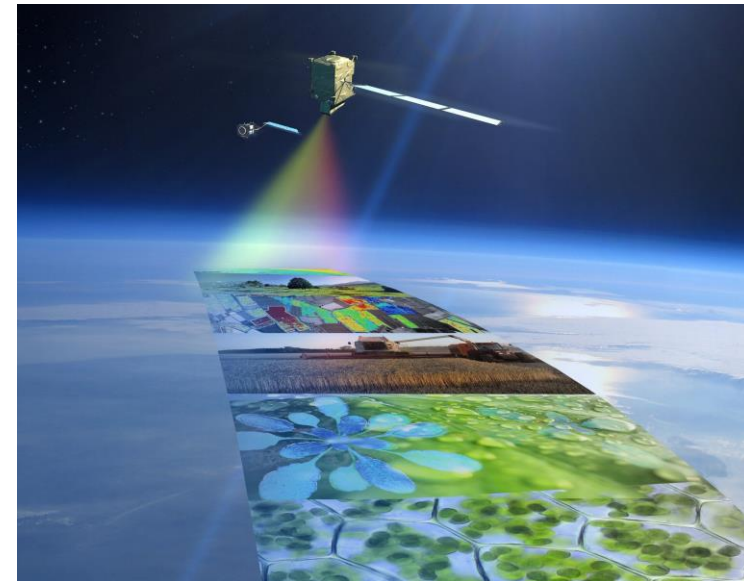
The website is being developed in two phases. After phase II implementation the website has a potential to become a central platform supporting the coordination between all actors using space for climate action.

Space4Climate   Space Technologies ▾   Climate Action ▾   Focus Areas ▾   Actors   News & Events   Resources ▾   

**Phase I:** awareness rising content, with a focus on space technology and application in supporting Climate Action

**Phase II:** informational tool providing up-to-date information for all actors involved such as

- Access to relevant databases, publications, training, and other opportunities.
- Sharing news, events and key contacts







# To keep the 1.5-degree goal alive there is a need in more ambitious climate action.

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- **Strategic Mapping Exercise** on existing international effort using space technologies to support climate adaptation, mitigation, monitoring and resilience.
- **Space4Climate Action Website**



UNOOSA is grateful for the support and the ongoing interest of the Government of Austria and the United Kingdom in different UNOOSA actions and cordially welcomes interested parties to actively use the recent outcomes in space for climate action.

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