AUSTRIA, ITEM 6

Space-system-based disaster management support
62nd Scientific and Technical Subcommittee (3 – 14 February 2025)

Chair,
Distinguished Delegates,

The **UN aridity report 2024** states that more than three quarters of all land areas on Earth became drier in the last three decades. "This is an existential crisis redefining life on Earth." says the report: Drylands now cover almost 41 per cent of the world's land area. Around 78 % of Earths land experienced drier conditions during the last three decades. Hotspots are parts of Western United States and Brazil, Mediterranean and Southern Europe as well as Central Africa and parts of Asia. Around half of the world's dryland inhabitants live in Asia and Africa.

The report lists the devastating impact of aridity, but also **recommendations for tackling aridity**, emphasizing mitigation and adaptation: **Strengthen aridity monitoring and integrate aridity metrics into existing drought monitoring systems** comes first in the list of recommendations.

This is why in 2022 the Austrian Development Agency in financial cooperation with the BMK started the multi-annual project "**Enhancing Drought Early Warning in Mozambique through Satellite. Soil Moisture Data to support food security in the context of climate change."**

Agriculture is one of the most important socio-economic sectors in Mozambique. Food production in Mozambique faces significant challenges because it relies heavily on rain fed agriculture, which is highly vulnerable to droughts.
Currently, most drought early warning systems in the country depend on precipitation and temperature sensors, but these are limited to just a few locations.
The **DrySat project** tackles this issue by using microwave remote sensing to provide drought information. This technology allows monitoring vast areas with much higher resolution than

traditional methods. However, managing microwave remote sensing data is no easy task due to its large volume and the complexity of extracting useful insights. To address this, the project developed straightforward metrics that measures soil water deficits and tracks the start of the rainy season — both of which can inform timely actions to address water shortages and support crop health. Additionally, the project is working to promote the adoption of these remote sensing solutions among small farmers through specialized software applications and training programs.

The Austrian project partner is the Technical University of Vienna. The Mozambican project partners are the Eduardo Mondlane University, the Mozambican Ministry of Agriculture and Rural Development (MADER), the Red Cross and the World Food Programme (WFP).

The Austrian Development Agency launched this project to support UNSPIDER objectives in the region. It was originally due to run until 2025, but will be extended by a few years. We hope that this project will contribute to improve food security and nutrition while managing the effects of climate change.

To learn more about that project, we cordially invite you to a **Joint side event "Space Solutions for disaster management"**, co-organized with UNOOSA/ UNSPIDER and Germany on Wednesday, 12 February at 1 PM in Room M2.

Thank you.