

CONCEPT NOTE
for the Plenary Session
at the 28th Conference of the Parties to the UN Framework Convention
on Climate Change (COP28)
«Dust Storms in Central Asia: Source Mapping and Mitigation»

Date: 03/12/2023 (4:45pm – 6:00 pm)

Location: CAREC-Central Asia Pavilion (MA19G3), Blue Zone COP28 UNFCCC, Dubai Expo

1 INTRODUCTION

This workshop will gather experts in sand and dust storms (SDS) for a closed consultation. The session will include a brief presentation and then brainstorming discussion on anthropogenic source mapping and SDS mitigation. The goal is to identify key areas for regional cooperation in addressing SDS impacts.

Sand and dust storms (SDS) pose unpredictable challenges that necessitate collaborative action in their mitigation and response. Certain land use practices in agricultural and pastoral sectors, water use, soil management, and deforestation, can worsen SDS's occurrence and impacts. The consequences of SDS are predominantly damaging, particularly to air and water quality. SDS detrimentally affect health, the transport sector, agricultural productivity, and ecosystem integrity. The impacts of SDS disregard geopolitical boundaries but disproportionately affect the most vulnerable in our societies. Therefore, identifying hotspots of anthropogenic SDS sources through source mapping is essential for successful mitigation. Furthermore, ongoing efforts to mitigate SDS should incorporate lessons learnt from existing successful initiatives.

Over 80% of Central Asia is covered by deserts and steppes, representing a significant natural SDS source. However, as these landscapes experience climate change and unsustainable land management practices, Central Asia experiences conditions for anthropogenic SDS sources. Moreover, the drying up of the Aral Sea has led to the development of 5.5 million ha of salty desert, a source of 100 million tons of dust and poisonous salt. Land restoration is underway in the region with 1.7 million hectares of forest plantations. However, enhanced efforts are necessary since SDS frequency and economic impacts in Central Asia are increasing.

Central Asian countries do not have fully operational national SDS forecasting, early warning and monitoring systems. This hinders data exchange between SDS source

and destination countries and undermines coordinated preparedness and mitigation efforts.

2 OBJECTIVES

1. Strengthening SDS mapping knowledge through the definition of key elements for methodological approaches.
2. Discussing a few case studies with success stories.
3. Identifying appropriate solutions for Central Asia.

3 DRAFT OF PLENARY SESSION

At the event, the following main topics will be included in the presentation and discussion:

- SDS Source Mapping: Discuss methodologies for mapping potential anthropogenic SDS source areas in Central Asia.
- SDS Source Mitigation: Explore conceptual and practical approaches for mitigating anthropogenic SDS sources and learn from success stories.

4 POSSIBLE PARTICIPANTS

The session will include special guests, including representatives of UNCCD, regional SDS experts, and members of the scientific community.