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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 20483-2025

Replacing GB/T 20483-2006

Land desertification monitoring method

土地荒漠化监测方法

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 20483-2006 "Methods for monitoring land desertification". Compared with GB/T 20483-2006, except for the structural adjustment, Besides the editorial changes, the main technical changes are as follows.

a) Added "Data, regions, indicators and methods for land desertification monitoring" in the "Scope", which is applicable to "Dynamic monitoring of land desertification".

Assessment of desertification caused by climate change and desertification in the 2006 edition" (see Chapter 1);

b) Deleted "Selection of monitoring sample areas and measurement points" (see 4.1 of the 2006 edition);

c) Change "test items and methods" to "monitoring data" (see Chapter 4, 4.2 of the 2006 edition);

d) Deleted "Common Equipment for Desertification Monitoring" (see 4.3 of the 2006 edition);

e) Change "monitoring of climate change and human activities" to "monitoring areas" (see

Chapter 5, Chapter 5 of the 2006 edition), and add The dryness level was changed (see 5.1), the humidity index monitoring (see 5.2 of the 2006 edition) was deleted, and the satellite remote sensing of desertification was added.

The identification of desert patches (see 5.3) and the statistics of groundwater levels and human activities (see 5.4, 5.5);

f) Changed "Monitoring of desertification attributes" to "Monitoring indicators" (see Chapter 6 of the 2006 edition), and added vegetation cover The vegetation coverage and vegetation productivity monitoring indicators (see 6.1 and 6.2) have been deleted. The content of vegetation coverage image processing has been deleted (see the 2006 edition of 6.4.1.3.2);

g) Added "Degree of Desertification" (see Chapter 7);

h) Added the calculation method of vegetation net primary productivity (see 6.2, Appendix C);

i) The content on interpretation of aerial survey images has been deleted (see 7.4.2 of the 2006 edition);

j) Deleted the satellite image data source and processing flow (see 7.5 of the 2006 edition);

k) Deleted "Record Form Format" (see Appendix A of the 2006 edition);

l) Change "Budko synthesis method for calculating evaporation power" to "desert patch remote sensing identification method" (see Appendix A, Appendix B of the 2006 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed by the China Meteorological Administration.

This document is under the jurisdiction of the National Technical Committee on Climate and Climate Change Standardization (SAC/TC540).

This document was drafted by: National Climate Center, Institute of Aerospace Information Innovation of Chinese Academy of Sciences, Lanzhou Vocational and Technical University of Resources and Environment, Shaanxi Provincial Meteorological Bureau, Xinjiang Uygur Autonomous Region Meteorological Bureau.

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2006 as GB/T 20483-2006;
- This is the first revision.

1 Scope

This document specifies the data, regions, indicators and desertification degree requirements for land desertification monitoring, and describes the land desertification monitoring Technical methods.

This document is applicable to the dynamic monitoring of land desertification and the assessment of desertification caused by climate change, wind erosion, water erosion, freeze-thaw and soil It can be used as a reference for monitoring and assessment of desertification caused by soil salinization.

2 Normative references

GB/T 20480

GB/T 33705

GB/T 35223

GB/T 35226

GB/T 35227

GB/T 35228

GB/T 35230

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 desert

A natural area with a dry climate, scarce rainfall, sparse and low vegetation, and barren land.

3.2 desertification

The phenomenon of land degradation in arid, semi-arid, and dry sub-humid areas caused by factors such as climate change and human activities.

3.3 desert patch

Objects or irregular blocks with corresponding spatial positions in remote sensing images that correspond to desert features.

3.4 aridity index

The ratio of annual potential evapotranspiration to annual precipitation in a region.

Note. It is used to characterize the balance between precipitation and evapotranspiration during a certain period of time, and reflect the dry and wet conditions of the region.

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