[1]范一大,史培军,刘三超.我国北方沙尘暴与植被覆盖度关系研究[J].自然灾害学报,2010,06:1-7.

FAN Yi-da,SHI Pei-jun,LIU San-chao.Relationship between dust storm disaster and vegetation fraction in northern China[J].,2010,06:1-7.

导航/NAVIGATE
本期目录/Table of Contents
下一篇/Next Article
上一篇/Previous Article

工具/TOOLS
引用本文的文章/References
下载 PDF/Download PDF(2776KB)
立即打印本文/Print Now
推荐给朋友/Recommend

统计/STATISTICS
摘要浏览/Viewed 169
全文下载/Downloads 91
评论/Comments

我国北方沙尘暴与植被覆盖度关系研究(PDF)

《自然灾害学报》[ISSN:/CN:23-1324/X] 期数: 2010年06期 页码: 1-7 栏目: 出版日期: 2010-08-09

Title: Relationship between dust storm disaster and vegetation fraction in northern China

作者: 范一大[1]; 史培军[2]; 刘三超[1]

1. 民政部国家减灾中心，民政部卫星减灾应用中心减灾与应急工程民政部重点实验室，北京100053;

2. 北京师范大学资源学院，北京100875

Author(s): FAN Yi-da[1]; SHI Pei-jun[2]; LIU San-chao[1]

1. National Disaster Reduction Center of China, Disaster Reduction Center of Satellite Application, State Key Laboratory of Disaster Reduction and Emergency Engineering, MCA, Beijing 100053, China;

2. College of Resource Science and Technology, Beijing Normal University, Beijing 100875, China

关键词: 沙尘暴; 植被覆盖度; 中国北方

Keywords: dust storm; vegetation fraction; Northern China

分类号: S424

DOI: -

文献标识码: -

摘要: 利用NOAA/AVHRR和旬归一化植被指数NDVI数据,计算了1983-2000年中国北方13省市区的植被覆盖度,分析了这些地区植被覆盖度的时间变化趋势和空间分布规律,研究了中国北方沙尘暴与植被覆盖度之间的关系。结果表明:我国北方沙尘灾害频次与植被覆盖度有很好的对应关系,1983-2000年的18年间,我国北方大部分地区植被覆盖度增加,这段时期沙尘灾害频次总体呈降低趋势,其中20世纪80年代我国北方大部分地区植被覆盖度增加,这一时期我国北方沙尘暴发生频数下降;20世纪90年代,我国北方大部分区域植被覆盖度呈下降趋势,特别是华北和西北干旱与半干旱地区,下降趋势显著,这一时期我国北方沙尘暴发生频数在减少中有回升趋势。研究结果表明,植被覆盖度是影响中国北方沙尘暴频次变化的重要因素。

Abstract: Dust storm is one important kind of natural disaster in northern

China.This article used NOAA/AVHRR data and NDVI time series products to calculate vegetation fraction in 13 provinces,municipalities and autonomous regions in northern China from 1983 to 2000.Then the spatial and temporal change tendency of vegetation was analyzed.The results show that dust storm frequency has a good relationship with vegetation fraction.In the 1980s,the vegetation fraction was increased in the most area of northern China and the frequency of dust storm disasters was decreased in the northern China on the whole.In the 1990s,the vegetation fraction was decreased and the frequency of dust storm disasters was increased on the whole in the northern China,especially in the Northwest China and in the North China.Therefore,vegetation fraction is an important factor to influence dust storm frequency.

参考文献/REFERENCES

[1] 张增祥,周全斌,刘斌,等.中国北方沙尘灾害特点及其下垫面状况的遥感监测[J].遥感学报,2001,5(5):377-382.
[2] 张国平,张增祥,赵晓丽,等.2000年华北沙尘天气遥感监测[J].遥感学报,2001,5(6):466-471.
[3] 范一大,史培军,王秀山,等.中国北方典型沙尘暴的遥感分析[J].地球科学进展,2002,17(2):289-294.
[4] 高尚玉,史培军,哈斯,等.我国北方风沙灾害加剧的成因及沙化过程的中长期发展趋势[J].自然灾害学报,2000,9(3):31-37.