SNOW HAZARD REGIONALIZATION IN CHINA

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ABSTRACT: For the zoning of snow hazard in China, on the principles of (a) comprehensive analysis integrated with dominant factors, (b) multi-level division, and (c) serving the agriculture and stock-raising, transportation and communication, we first classified China into two large zones according to the situation of snow or no snow distribution. Secondly, based on the climate and landform, properties of snow cover and main features of snow hazard, the large zone of snow hazard can be classified into three second-level regions. In order to obviously reflect the difference of snow cover quantity and snow hazard type as well as hazardous degree, twenty subregions (third-level) of snow hazard are further divided in detail. In addition, the boundaries and the principal features of the differences between the various snow hazard regions are provided.

KEY WORDS: snow hazard, regionalization

I. INTRODUCTION

The area of snow cover in China is approximately $9 \times 10^6$ km$^2$, in which the permanent snow cover is about $6 \times 10^4$ km$^2$ distributed mainly over the glaciated region of modern glacier and high mountains in the whole western mountainous region of China. Seasonal snow cover is widely present in China, its south boundary at about 25° N. In comparison with the countries of the same latitude in the world, the south boundary of snow cover in China is relatively low in latitude.

According to the data of snow cover duration from more than 1700 meteorological stations and observation stations, the distribution of permanent snow cover of China may be seen from Fig.1.

The regions with the maximum duration of snow cover period in China, except the western mountains and the permanent snow covered regions above snow line in the Qinghai–Xizang Plateau, are distributed mainly in the northern part of the Da Hinggan
Fig. 1 The Distribution map of snow cover in China