GIS based site suitability analysis for the identification of potential skiing resorts in Gilgit Baltistan, Pakistan Rasba Rafaqat¹, and Syed Umair Shahid^{1*}

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Tourism is the source of entertainment for those people who want to spend some quality time away from homes and is the source of their relaxation and pleasure away from their busy routines. Tourism has different types but the most famous type among tourists is adventure tourism. Skiing is also the part of adventure tourism which has become most famous winter sport and recreational activity among the tourists. Many countries are famous for having ski adventure tourism facilities. Although many northern areas of Pakistan have a great potential for ski adventure activities but in Pakistan skiing is not a well-known recreational activity. Gilgit Baltistan (GB) is the mountainous part of Pakistan which is famous for tourism because of its beautiful and natural scenic views. This study is based on the identification of suitable sites for the development of potential skiing resorts in GB using GIS. For this purpose, three main parameters include min and max. air temperature, slope and elevation of all stations of GB were analyzed followed by a weighted overlay analysis. The results showed that 18% area of GB is good for skiing while remaining 82% GB may not be good for skiing which means that development of suitable sites for skiing resorts is possible only in the identified 18% area of GB. The identified suitable area was further classified into vocational Ski resorts, Learning ski areas and ski areas for experienced skiers. The results showed that 18% areas are those which can be used for the construction of ski resorts for vocational purposes. 41% areas are those which can be utilize by tourists for learning purposes and 39% area can be used by those skiers who are expert in skiing activities. Route conditions of GB and suitable distance from major roads were also analyzed in this study. Moreover, the suitable sites for skiing were graded into highly preferred to least preferred scale on the basis of their distance from major roads (lying within 5km) and percentage of vocational, learning and experiential ski areas lying within each suitable skiing sites. This preference scale Conference Earth Science Pakistan, 2-4 June, 2024 Baragali Campus

will be helpful for tourists to choose which suitable site of GB they should visit for skiing on the basis of their interests. It has been concluded that Gilgit Baltistan has a great potential for the development of different types of ski resorts which have not been identified before. These findings can be helpful for government and local people to develop skiing resorts in GB and generate revenue by promoting skiing adventure tourism activities in GB.