Title	Variation of temperature and its effect on the water resources of Nepal
Author(s)	Pokhrel, A.; Shakti, P C
Citation	IOP Conference Series: Earth and Environmental Science, 6(29), 292057 https://doi.org/10.1088/1755-1307/6/9/292057
Issue Date	2009
Doc URL	http://hdl.handle.net/2115/55026
Rights	Published under licence in IOP Conference Series: Earth and Environmental Science by IOP Publishing Ltd.
Type	article
File Information	1755-1315_6_29_292057-1.pdf

[Instructions for use](#)

Variation of temperature and its effect on the water resources of Nepal

This content has been downloaded from IOPscience. Please scroll down to see the full text.

2009 IOP Conf. Ser.: Earth Environ. Sci. 6 292057

(<http://iopscience.iop.org/1755-1315/6/29/292057>)

View [the table of contents for this issue](#), or go to the [journal homepage](#) for more

Download details:

IP Address: 133.87.216.190

This content was downloaded on 03/04/2014 at 09:09

Please note that [terms and conditions apply](#).

P29.38**Variation of temperature and its effect on the water resources of Nepal***A Pokhrel(1), PC Shakti(2)**(1) Tri Chandra Multiple Campus, Tribhuvan University Kathmandu, Nepal**(2) Faculty of Bio-Science Engineering, Water Resources Engineering) Katholieke University, Leuven , Belgium*

Prognosis of temperature trends is an important factor in taking strategic decisions especially in water resources and daily lives of human beings. Hence study has been conducted with altitude, seasonal, and annual trends. Regression model is developed to forecast the lapse rate. It is clear that the normal lapse rate of temperature is 0.50C per 100 m. Up to 3,675 km from m.s.l. temperature decreases at the same rate with height. This is the highest turning point, after which temperature decreases slowly not at the same rate as before (No one perform research in this case till date in Nepal). The vertical distribution of heating is more sensitive to the change of the monsoon phase over sub Himalayan region than Central Indian and Tibetan Plateau. The trend of variation in mean annual temperature is increasing slowly whereas the seasonal contrast is increasing rapidly in Nepal. In the study of seasonal contrast, it reveals that greater the summer means temperatures greater the variation, lower the mean winter temperature greater the variation. As the summer temperature increases the winter temperature remains stable and as the winter temperature increases the summer temperature remains stable. The main causes of increasing tendency of mean annual temperature and as well as seasonal contrasts are the decreasing tendency of precipitation and growing desertification.