

Part Three

Abstract

Climate, Water and Sediment Issues

Data from the Guojiazhuang station, located in the middle of the Xizhuang watershed at 1555 m a.s.l., were used to provide a general impression of the climatic conditions in the watershed, one of the five watersheds being investigated by PARDYP.

This paper provides climate information from June 3rd 1997 to December 31st 1998. Monitoring of rainfall and temperature started on June 3rd 1997, and of wind speed on July 1st 1997. The strongest El-Niño of the 20th century occurred in 1997-1998, and the end of the rainy season and led to the lowest number of summer days being recorded for the first time since records began. Precipitation was below normal in July and September, the El-Niño phenomenon subsided in October, and was followed by a strong La-Niña, which also influenced the climate of the watershed. The temperature and precipitation were higher than normal from January to April 1998, the 1998 rainy season began in mid-May and lasted until the end of October, but the temperatures were above normal throughout. The number of sunshine hours was lower than average in November and December. Temperatures were higher than normal and precipitation lower.

Metecological Data

The 1997-1998 temperature, precipitation, relative humidity and sunshine data are summarised in Figures 46 to 52. Data are also available for Guoshan meteorological station, which is located in the Baoshan valley outside but near to the watershed and at lower altitude (approximately 30 km distance and 1600 m a.s.l.)

Temperature

Yunnan Province is influenced by the South Asian monsoonal climate, and it is characterised by distinct wet and dry seasons. In 1998, both the extreme minimum temperature (-0.7 °C), and the mean monthly minimum temperature (7 °C) occurred in January. The extreme maximum temperature (32 °C) occurred in May, and the mean monthly maximum temperature (22.5 °C) for June (Figure 46).