STUDY AREA
Sutlej river is one of the longest river and most important tributary of Indus river system. It flows a considerable distance before entering Himachal Pradesh near Shipkila and base of ridge in Shimla and then enters Bilaspur where gigantic Bhakra dam has been constructed on it. Gobindsagar reservoir came into existence with the construction of this dam which is a major source of fish production in northern India.

The Nangal dam is constructed across the river Sutlej about 12 Kms downstream at Nangal in Punjab. It has recently been declared as “National wetland” as it supports high planktonic growth, fish biodiversity and avian fauna.

Nangal wetland is located at 31.37°N 76.38°E on the boundary of Himachal Pradesh and Punjab at an altitude of 326 meters at the base of the Shiwalik hills (Figs.3.1-3.4). The Nangal wetland came into existence mainly due to the discharge of the Bhakra dam. The construction of the Nangal dam has led to the development of a lake called as Nangal Lake.

Nangal dam is 29 meters high and 304.8 meters long. The average depth of the lake is 24 meters with a maximum depth of 41 meters. It spreads over an area of 400 ha. It diverts the waters of Sutlej into two hydel channels i.e. Nangal hydel channel and Anandpur sahib channel for power and irrigation purposes. It is also important to mention here that Nangal wetland act as a balancing reservoir to smoothen out the diurnal variation in release of water from Bhakra dam during the production of electricity.
Fig. 3.1 Location of various wetlands in Punjab, India (Ladhar, 2005)
Fig. 3.2 Location of Nangal wetland at the boundary of Himachal Pradesh and Punjab
Study area

Fig. 3.3 Location of Nangal wetland in Punjab, India

Fig. 3.4 Photograph of the Nangal wetland, India