

1 INTRODUCTION

This annex analyses the hydrological and hydraulic impacts from various development scenarios for the nearest 5-20 years in the Mekong Basin and from NT2 in particular. The analysis is divided into two separate modelling tasks: **a)** hydrological modelling of the impacts Nam Theun, Xe Bang Fai and in the mainstream Mekong and **b)** hydraulic (hydrodynamic) modelling of the hydraulic impacts in the Mekong/Tonle Sap/Delta area.

The regulating impacts of envisaged hydropower construction in Yunnan and in the basins of Nam Ngum and Se San/Se Kong/Sre Pok are analysed and reported separately in Annex C. The results of that analysis is used as input for the analysis in the present Annex B.

The analysis is based on 50 years reference series of discharges in the Mekong and most important tributaries. The purpose of this is that such a long hydrological record is expected to include most thinkable combinations of hydrological events, for example of large floods in the Mekong and small floods in the tributaries and vice-versa, etc. By including such a large amount of data in the analysis, it is likely that the result will also be representative for the variety of events to be expected in the future.

In order to ensure that the main trend in the 50 years reference series is representative for the envisaged scenario period, an analysis has been carried out in order to give a best estimate for the future average situation. This analysis is presented in the following section.