

### **F-30: May 1993 Flood and its impact on the Nilwala floodplain**

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Flood hazard is one of the main environmental problems in the Nilwala Basin. Flooded area accounts for 38 % of the total basin area. There have been 30 minor floods, 15 major floods and 3 critical floods from 1940. The objectives of the study are: analysis of magnitude of the May 1993 flood and assessment of its impact on the floodplain environment.

The Nilwala Flood Protection Scheme was implemented to mitigate the flood damages and to improve the agricultural production in the floodplain.

Data and information collection of the study focus on 2 aspects: (i) hydrological data and (ii) flood damage data. May 1993 flood occurred from May 24th to June 2nd 1993. Data on flood damage was collected from 3 types of questionnaire surveys GN Division Survey, Farmer Organization survey and sample survey of the selected 2 villages. Additionally secondary data was gathered.

May 1993 flood in the Nilwala Basin was a minor flood. Peak flood level was 4.5 m and peak discharge was 253 cumecs at the Bopagoda gauging station. However, flood duration was 12 days which was longer than May 1969 major flood. The flood water inundated both protected and unprotected areas. Thus this minor flood turned into a major flood situation due to the shortcomings of the Flood Protection Scheme. The extent of flood damages were very high compared to previous minor floods. The crop damages were estimated at nearly 5000 ha. Further 2226 houses were damaged and 7833 families were affected by the floods. The loss of human lives was 7.

According to the sample survey, 92% of the respondents in the protected area respond that flood damage was very high as it was in the unprotected area. Therefore, the main objective of the Nilwala Flood Protection Scheme was not achieved.