



WP 7

Physical effects of load fluctuations in rivers and reservoirs

Fluctuating water levels may destabilize banks along lakes and rivers and trigger slides. Frequent flood waves may increase scouring. In total this may lead to increased sediment and nutrient transport. Also, hydraulic structures like dams, weirs, bridges and revetments etc. will be subjected to frequent fluctuations in hydraulic loadings which may have a destabilizing effect. A general increase in river flow and more frequent floods due to climate change is likely to intensify these problems.

The following steps will be carried out:

- Develop scenarios for hydraulic fluctuations at selected sites (Closely linked to WP5)
- Develop experimental reaches for field monitoring and testing
- Analyze the effects of fluctuating loads on bed, banks and structures
- Develop tools for predicting short and long term effects on scour and sediment transport
- Develop guidelines and propose mitigation measures