## Balancing the costs and benefits of dams: an environmental perspective

Dr. Ute Collier, Living Waters Programme, WWF International

SYNOPSIS While dams have brought many benefits, they have also caused major environmental impacts, especially on freshwater ecosystems which are suffering a serious decline. This paper explores how the benefits promised by dam schemes can be gained without excessive, unacceptable environmental costs, with a particular focus on Europe. The Spanish National Hydrological Plan is used as an example of an ill-conceived, unbalanced scheme. The paper then looks at examples from Zambia and Switzerland to show how mitigation measures can reduce the impacts of some dams, while still maintaining economic benefits. The paper promotes the decision-making framework of the World Commission on Dams as the way forward.