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Freshwater salinisation: a global challenge with multiple causes and drastic consequences

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Freshwater salinisation (FS) can be defined as the alteration of the salt concentrations and ion ratios in freshwater ecosystems. As evidence of the economic, environmental and societal impacts of FS mounts, the issue is receiving increasing attention from researchers, water managers and policy makers. A general consensus is emerging that FS is a global ecological and societal challenge that urgently requires effective management. However, there are still many unanswered questions that hamper our ability to make progress. In this talk I will tackle some of these questions. For example: Which human activities are contributing the most to FS in different regions of the world? How does FS interact with other stressors (including climate change)? What is the effect of FS on trophic interactions and ecosystem functioning? Which are the economic costs and human health risks associated with FS? How should we monitor FS? Which technical and nature-based solutions are available to prevent and mitigate FS and to restore salinised ecosystems?