

Increasing sustainable stormwater management adaption through transdisciplinary research

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The Ribble Rivers Trust leads a partnership of land and water management organisations that use a holistic approach to water management in the Ribble catchment. They are interested in incorporating sustainable stormwater systems, into their program of delivery with a view to ensuring that their activities to improve the environments and habitats of the catchment also contribute to reducing flood risk. A methodology, to locate interventions that would slow water within the catchment are identified; however partner buy in, institutional caution and economic barriers are felt to be hindering delivery. In response a transdisciplinary research project in which both the academics of the University of Liverpool and the practitioners of The Ribble Rivers Trust are active investigators has been established. The project aims to increase the uptake of sustainable stormwater management techniques through the analysis of the institutional, experiential and governance processes and their interactions with the physical hydrological processes governing stormwater systems.

Research that is transdisciplinary must integrate academic knowledge with practitioner, local understanding and practice. Furthermore methodologies belonging to different academic fields must be blended together to collect, analyse and interpret data in order to examine complex problems through different disciplinary lenses in an integrated way. This approach has been developed in response to the complex relationships of cause and effect of contemporary inter-related economic, environmental and societal challenges.

There have been a number of challenges to overcome as transdisciplinary researchers, the first and most important was to understand the different research philosophies and theoretical assumptions behind various natural science and social science research methods. Without this understanding research methodologies could be flawed and would not be effectively integrated and the data would not be interpreted correctly. In practice it has also been found that the roles of the research team cannot remain fixed. Researchers must be able to move between participant, observer, facilitator, campaigner, partner and decision maker depending on what is being studied and which methods are being used. The most effective way in which to accomplish these chameleon like transitions is to have a strong and secure framework of research questions that are always referred back to.