Managing Catchments and Coasts video introduction transcription

People have a very close relationship with water – we all have to drink it, it's the topic of conversation when it rains, we swim in it, may go boating, fish alongside it but really, I think we take water for granted. We'd certainly think more about water efficient measures if we had to go and collect our water from a well and carry it home. But even in the UK we can experience significant problems with water; take, for example, the recent floods and droughts that have been in the news.

So, if we consider the hydrological cycle, the water running through a catchment interacts with many landscape factors – the soils, urban areas, societal activities and it picks up the signal of all of these and all of these affect the quantity and quality of the water reaching our rivers and the seas. But increasingly we are asking for more and more from our landscapes – we are asking them to be places to live, places to grow our food, for recreation, to provide renewable energy, to get rid of wastes and all of these things are really interacting with the quality of the water and what we need to do to manage catchments is to make some kind of decisions about where best to place these activities in the landscape and try and get some understanding of the measures we need to put in place to minimise some of the negative aspects like pollution.

But really people need to be at the heart of this decision making process, there's no point in trying to put in a lot of measures to improve water quality for natural flood management if we can't involve the people in a catchment because they will help us to get the actions in place.

So more and more the natural water cycles are interacting with managed water cycles – when we want to store rain water we may build a reservoir, when we want to gain power we might include a hydro-electric scheme. Also, some of the things we discharge into our waters like sewage are considered wastes at the moment so our work is going to be more and more about making these systems more efficient, we are going to be looking to drive down the energy inputs towards the treatment and distribution, making agriculture more water efficient, looking to capture and recycle some of the waste materials that currently we view of as wastes and going into the water and thereby, in turn, minimising the treatment burden for cleaning up water and distributing it again.

So – this is going to take a lot of scientific innovation and really we need to learn from natural processes in doing this; we can harness some smart biological systems to help us along this way along with our innovation. So – how many of us all really realise that we too can be catchment managers; if we consider that the farmer in his fields or the householder at their kitchen sink – they are all vital parts of the catchment system so really this thing about people being part of the solution, there's no point in employing really expensive water treatment options if we want to remove pharmaceutical chemicals from the waters if a practical measure is just to encourage people not to throw unwanted medicines down their toilet. So we could all act, given the right knowledge and understanding, and our work is about finding acceptable, pragmatic solutions to some of these problems involving people, nature, technology and these solutions will help society.