



Clarity through understanding science

By teaching communities the science behind wastewater treatment, we can improve the quality of our water.

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Tourism entrepreneurs can assist in branding and selling biosphere reserves.

There is an urgent need for improved water treatment processes due to an increase in population requiring pure water for daily activities. Various methodologies have been explored for the removal of organic compounds from wastewater, including biological treatment, coagulation, precipitation and adsorption.

It still remains difficult, however, to degrade organic pollutants or remove them completely from water, causing communities that need to use the treated water to distrust the nature of the water.

Photocatalysis (PC) based on nanocatalysts is a very promising method for the treatment of contaminated water. Photocatalysis is a process where an electron-hole pair is generated by exposing semiconductive materials to light of suitable energy. This process has the ability to treat water to extremely safe and usable levels. However, to get the community to trust this water is a different challenge altogether.

By using principles based on research in the field of public understanding of science, researchers can involve the community and educate them to understand the

science behind the project better, and hopefully convince them about the safety of the water.

“We will work with local environmental agencies and working groups in the area of wastewater treatment to disseminate new findings to the community,” says Kaviyarasu Kasinathan.

“In addition, we will explore opportunities for secondments to and from research organisations and industries and offer summer internships, or scholarships for undergraduate students, and will outline priorities for future research, policy and practice.”