

Students from Singapore Win 2012 Stockholm Junior Water Prize

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Crown Princess Victoria of Sweden presented the 2012 Stockholm Junior Water Prize at an award ceremony at the World Water Week in Stockholm. The winners were students Luigi Marshall Cham, Jun Yong Nicholas Lim and Tian Ting Carrie-Anne Ng from Singapore.

The three 18 year olds from Singapore won the Stockholm Water Prize for their research on how clay can be used to remove and recover pollutants from wastewater. The compounds studied are so called non-ionic surfactants, soap-like additives which are used in industry as well as in household detergents and cosmetic products. They are common pollutants to wastewater that are hard to remove and current techniques used to treat them produce hazardous sludge which is difficult to dispose of. Luigi Marshall Cham, Jun Yong Nicholas Lim and Tian Ting Carrie-Anne Ng have developed a method where bentonite clay is used to remove, and recover, the pollutants from the water without the generation of any waste products. The clay is able to absorb up to 100% of the non-ionic surfactants and can then be flushed clean with alcohol, allowing the compounds to be reused. "This year's winning project shows the possibility of using a lower cost method to decrease an important water environment problem, which is relevant all over the world. The study does not only present an efficient way to remove a toxicant, but also a novel way to recover and reuse materials which would otherwise be discarded as waste," said the International Jury in its citation. Minimising the generation of hazardous waste from wastewater treatment will be even more important in the future since the processing, transportation and disposal of them require increasing amounts of space and energy as the world's population and economy continue to grow. The jury was deeply impressed by the winning team's comprehension of the complex challenges which was demonstrated both in the laboratory and in their analysis of their innovations prospects to be scale up for industrial use. Upon hearing the announcement, the Singapore team said they were both very excited and surprised. "We didn't expect it. We are very happy. When we return home we will propose our idea to the Public Utility Board of Singapore (PUB) and hopefully they will implement it," they said after receiving the prize.

The international Stockholm Junior Water Prize competition brings together the world's brightest young scientists to encourage their continued interest in water and the environment. This year, thousands of participants in countries all over the globe joined national competitions for the chance to represent their nation at the international final held during the World Water Week in Stockholm. Teams from 27 countries competed in the 2012 finals. The international winner receives a USD 5,000 award and a prize sculpture. "We are truly honoured to be part of this very important competition with young people that are as excited about and interested in water as we are," said Angela Buonocore, Senior Vice President and Chief Communications Officer

of Xylem Inc., the global sponsor of the Stockholm Water Prize. "We are genuinely impressed by the quality of the entries from around the world and are inspired by their innovative ideas. We congratulate all of the finalists and the very worthy winners from Singapore this year."

Diploma of Excellence to students from Chile -

A Diploma of Excellence was given to Alonso Alvarez and Daniel Barrientos from Chile for their project which outlined how salmon waste from the fishing industry can be used for biofuel production. The international Jury noted how the project applied systems thinking to address a growing water-related environmental problem in a community. They also pointed out that the team had worked extensively over a two year period show how fuel and other useful products can be generated from the wastes under the conditions specific to their locality, thereby presenting a practical approach that can increase the value chain associated with a growing local industry.

World Water Week - Stockholm