American student wins 2015 Stockholm Junior Water Prize

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American student wins 2015 Stockholm Junior Water Prize for revolutionizing method to remove electronic waste from water

Perry Alagappan from the United States received the 2015 Stockholm Junior Water Prize tonight for inventing a filter through which toxic heavy metals from electronic waste can be removed from water. H.R.H. Crown Princess Victoria of Sweden presented the prize at an award ceremony during the World Water Week in Stockholm.

Rapid advances in technology have resulted in a significant rise of electronic waste in our waters, which contains highly toxic heavy metals such as mercury, cadmium, and lead. "I became interested in water purification when I visited my grandparents in India, and saw with my own eyes how electronic waste severely contaminated the environment," said Perry. That was three years ago. Now at 18, after intensive research and experimentation, Perry won the Stockholm Junior Water Prize for his invention. Combining his interest for water with that of nanotechnology, Perry created a first-of-its-kind filter that removes over 99 per cent of heavy metal contaminants from drinking and industrial wastewater. "I am surprised, but so honoured, to win this award. I want to launch my study as open source technology that others can use and build upon in their research. This way, I think we can solve really big issues," said Perry after having received the award.

The Jury was impressed by Perry's passion and long term commitment to the research and its practical application. "This project addresses a critical water issue with broad implications for the whole world. Through its sound science and sustainable technology, the solution is scalable from household to industrial scale for a broad range of applications," said the Jury in its citation. "The technology used in the project could revolutionize the way water can be treated and heavy metals recovered," the Jury concluded.

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 29 countries competed in the 2015 finals. A Diploma of Excellence was awarded to students Katherine Araya and Katya Urqueta from Chile, for improving water use efficiency in agriculture. In their project, the students used fungus from an Antarctic root in lettuce production, which decreased the amount of water needed. "This team has found a locally relevant, constructive solution to a truly complex global problem. Their research addresses food security, water security, and the preservation of agricultural land. It provides a way for farmers to continue to manage their land and feed their nation in the face of growing uncertainty," said the Jury in its citation.

Stockholm Water Prize