

WaterWheel will bring clean water to a thirsty world

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Cynthia Koenig with a WaterWheel. Credit:Josh Dick

(PhysOrg.com) -- Cynthia Koenig knows that by reinventing the wheel she could change the world. In a few months, she hopes to make a difference in India.

Koenig, a graduate student at the University of Michigan, created the WaterWheel, a 20-gallon rolling [water](#) barrel and Wello, the business that distributes it in developing countries, where [clean water](#) is scarce.

After graduation this spring from U-M's Stephen M. Ross School of Business, Koenig plans to launch a pilot program in Rajasthan, India to test the WaterWheel's social impact and health benefits. Her goal is to sell 5,000 wheels in 12 months, positively impacting the lives of 40,000 people. She is working with an Indian company to manufacture the

wheel.

The 20-gallon rolling barrel provides enough water for drinking, [personal hygiene](#) and household cleanliness to meet the daily needs of four people in a single trip, according to United Nations guidelines.

Koenig's project is receiving recognition throughout the world. On Feb. 18, Koenig and her teammate Colm Fay, both graduate students in the Erb Institute for Global Sustainable Enterprise, a joint program with the Ross School and the School of Natural Resources and Environment, won \$10,000 in the Global Social Entrepreneurship Competition at the Foster School of Business at the University of Washington in Seattle.

"This is a great honor and the competition has been a great experience," Koenig said.

Students competed for prizes in the international social venture plan competition, where interdisciplinary student teams from around the world proposed creative, commercially viable businesses designed to reduce poverty in the developing world. The semi-finalists were selected from 100 teams in 24 countries.

In 2010, Koenig's team was one of three with winning ideas in the Dow Sustainability Innovation Student Challenge. The graduate-student competition is now underway for 2011, with the Graham [Environmental Sustainability](#) Institute accepting breakthrough sustainability ideas through March 5.



The WaterWheel, a 20-gallon rolling water barrel, was designed for use in developing countries where water is scarce. Credit: Josh Dick

Wello's goal is to effectively deliver clean water to a thirsty world. By reframing the water crisis as an opportunity, Wello has developed an innovative business model that empowers individuals to use the WaterWheel as an income-generating tool to lift their families out of poverty, according to Koenig. Women and girls, for example, could be freed to pursue an education and avoid the injuries related to carrying the water jugs.

One in six people in developing countries access to water means hours of walking and heavy lifting. Five gallons of water weighs 44 pounds and women and girls, often the household water carriers, stand in long lines

and carry heavy water jugs on their heads up to eight miles a day.

"In recognition of the fact that the people who need products like the WaterWheel the most have the least ability to afford them, we've developed a business-in-a-barrel model," she said. "It enables our customers to finance the purchase of a WaterWheel with a microfinance loan and use the tool to deliver clean water door-to-door, earning income in the process.

Provided by University of Michigan

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