
Bringing Safe Drinking Water to the World

With just a spoonful of white powder stirred into a beaker of brown, cloudy water, the dirt visibly clumps together and the water starts to clear. “Be it in Bangladesh or Tanzania, even if there’s a language barrier, when I conduct this demonstration, people ooh and aah, and faces break into smiles. I’ve even heard the startled response, ‘It’s magic powder!’” So relates Kanako Mizuno of the Poly-Glu Group.

But this is not magic. The name of the water-purifying powder is $PG\alpha 21Ca$, and it is made from polyglutamic acid, the sticky component in the popular Japanese food *natto* (fermented soybeans). It was developed by Dr. Kanetoshi Oda, who heads the Osaka-based Poly-Glu Group.

Dr. Oda, a former technician at a machinery manufacturer, was inspired to begin experimenting by the Great Hanshin-Awaji Earthquake of 1995, when the tap water supply was cut off. This led him to wonder if it might be possible to make the water from park ponds and moats drinkable. Six years later he created a pioneering water purifier that could remove impurities and produce drinkable water without the use of machinery or electricity. Contrary to his expectations, though, it proved very difficult to get the product accepted within Japan.

The turning point came in 2004, when the water purifier was used to provide drinking water for victims of the Indian Ocean earthquake and tsunami. This successful application attracted global attention to the product, which was subsequently supplied for use in such places as Thailand, Mexico, and Bangladesh. And as it built up a good reputation through practical application, there were increasing inquiries from developing countries. It is currently being used to purify water from ponds and marshes in over 40 countries struggling with shortages of drinking water.

The purifying technology is not the only reason the Poly-Glu Group is winning high marks. Its representative role as a “base of the pyramid” (BOP) business targeting low-income consumers in developing countries has earned it worldwide renown. By providing drinkable water to local people at an affordable price, it has established itself as a sustainable business. And this water has greatly improved the quality of life for many people whose only option was to use the dirty water from lakes and marshes.

It is also worth noting that locally employed women handle sales of the water. Known as “Poly-Glu ladies,” these saleswomen perform the purification demonstration described above, show potential customers the water quality, and directly sell the powder and water. With the steady income they gain through employment, the Poly-Glu ladies can greatly improve their lifestyles. Providing women with this new kind of employment opportunity is extremely significant. “When they go around the local households, the ladies receive a lot of thanks, with people saying, ‘I’m happy because I can now cook with clean water,’ or ‘I can give my children safe water to drink.’ This makes me happy as their colleague,” Mizuno declares, adding, “I’m proud to be doing work that contributes to better living situations for women.”

Through its water business, the Poly-Glu Group is both making people’s lives better and advancing women’s status. The globe-spanning activities of Dr. Oda, Mizuno, and their colleagues are set to continue.

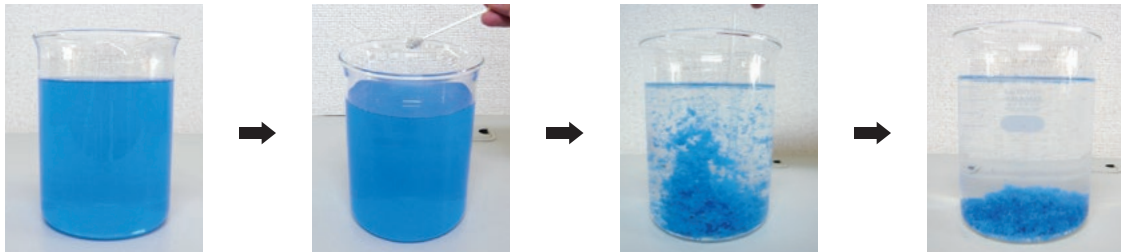


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1. Mizuno teaches a Poly-Glu lady in Tanzania how to conduct water purification. She travels overseas several times a year to areas where PGα21Ca is used. 2. Dr. Oda and Mizuno conduct a demonstration of the purification process in Tanzania, drawing a crowd of observers.

PGα21Ca: A safe water purifier that anyone can use



PGα21Ca is made only from such natural ingredients as polyglutamic acid and shells. After adding just 0.1 grams to one liter of water, stirring, and leaving for one minute, the impurities cluster together. Then filtering with absorbent cotton and boiling or adding chlorine produces clean, drinkable water.



Kanetoshi Oda

Born in 1941. After graduating from the School of Engineering Science at Osaka University, he joined a machinery manufacturer, where he developed an automatic control device for air-conditioning systems before going independent. In 2002 he developed the water purifier PGα21Ca and founded Nippon Poly-Glu, and in 2012 he founded Poly-Glu Social Business, which has become a standard-bearer for BOP business.

Kanako Mizuno

Born in 1988. Researched BOP business and policies for supporting it at the Graduate School of International Social Sciences, Yokohama National University. In 2012 she joined Poly-Glu Social Business, where she works as social business team leader.



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<https://youtu.be/XkmVQXN9T78>